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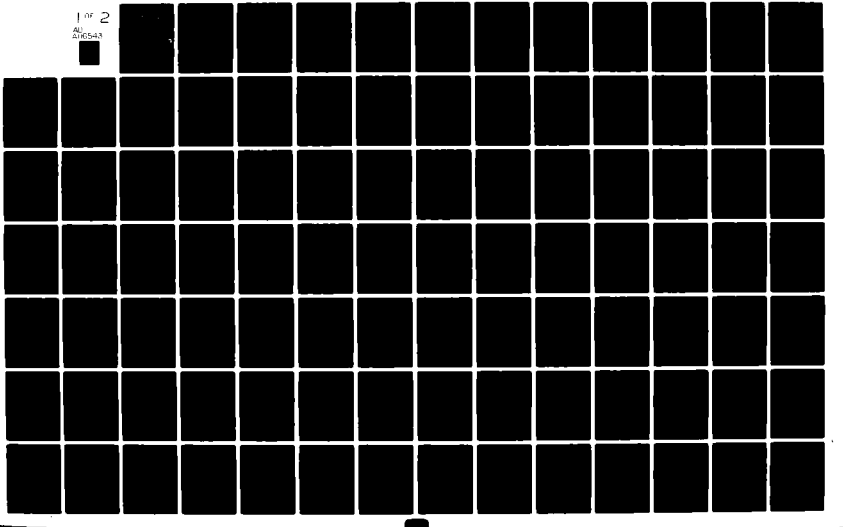

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A Description of Methodologies Used in Estimation of A-Weighted Sound Levels for FAA Advisory Circular AC-36-3B

Noise Technology Branch
Noise Abatement Division
Office of Environment and Energy
Federal Aviation Administration

January 1982

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16. Abstract

This report provides a description of the assumptions, methodologies and techniques employed in arriving at estimated sound levels for many of the aircraft included in FAA Advisory Circular AC-36-3B. AC 36-3B was published to provide the public and the aviation community with comparative sound level information for aircraft currently in use. Detailed noise estimation data sheets are provided for 78 aircraft types. A table showing the difference between EPNL and dB(A) for selected jet aircraft is also provided.

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1.0 Introduction - This document has been prepared in support of FAA Advisory Circular 36-3B (AC 36-3B). AC 36-3B was published to provide the public and the aviation community with comparative sound level information for aircraft currently in use.

This report provides a description of the assumptions, methodologies and techniques employed in arriving at estimated sound levels for many of the aircraft included in the advisory circular.

AC 36-3B presents noise level estimates using the A-Weighted Sound Level (dBA) at FAR Part 36, Appendix C measurement positions (6500 meters from start of takeoff roll and 2000 meters from the runway threshold for approach). Noise levels are estimated as they might occur during type certification tests conducted under Appendix C of Part 36, and are intended to provide a consistent basis for comparison between major aircraft models.

These conditions may or may not be representative of the in-service operation of a particular aircraft at a particular airport. Variations from the values of the noise estimates presented in AC 36-3B for individual flights at various airports under nominally the same conditions could range within plus or minus 5 dBA. The average value for actual aircraft noise levels may deviate plus or minus 3 dBA from estimates. Sources of this variation are numerous including piloting technique, windspeed, wind direction, temperature and relative humidity influences, sound propagation path anomolies and the presence or abscence of aircraft engine treatment for noise reduction purposes. Cognizant of these variables, the FAA believes that the ranking of aircraft noise levels that occur under normalized, uniform certification reference conditions provides the best means for assessing the relative noisiness of airplanes.

2.0 Piston Powered, Propeller Driven Light Aircraft - This section sets out the methodology used in computing noise levels of piston powered propeller driven light aircraft. Data sheets are provided in Appendix A showing input assumptions and estimated noise levels for many of the aircraft appearing in AC 36-3B. In translating these estimates into the advisory circular the sound levels were rounded off to the nearest decibel as not to convey a false sense of precision. The data sheets, however, carry estimates to the tenths place.

As the estimation procedure is described in the ensuing paragraphs, certain abbreviations and symbols are used. This nomenclature is identified below in order of appearance.

Approach Operation

FAR-36	Federal Aviation Regulation Part 36
V_{SO}	Stall speed with gear down and landing flaps extended.
dBA	A-Weighted Sound Level (expressed in decibels) If not otherwise noted, this is taken to be the maximum slow response A-Weighted sound level sometimes expressed L_{AM}.
E:dBA	A-Weighted Sound Level attributable to engine exhaust noise (expressed in decibels)
TBHP	Total brake horsepower (all engines)
h	height above ground level in feet
v	aircraft velocity (knots)
SEL	Sound Exposure Level (expressed in A-Weighted decibels). The SEL is sometimes referred to as the L_{AE}.

Level Flyover Operation

P:dBA	A-Weighted Sound Level attributable to propeller noise (expressed in decibels)
M_H	Helical tip Mach number
Ka	Ka = 3 for twin engine aircraft Ka = 0 for single engine aircraft

Kb	Kb = 4 for cut propellers Kb = 0 for standard uncut props
V_R	propeller rotational tip speed (feet per second)
V_T	propeller translational tip speed (feet per second)
RPM	propeller rotational rate (revolutions per minute)
c	speed of sound (feet per second)
Dia	propeller diameter (expressed in inches)
T^oF	air temperature in degrees Farenheit
T^oC	air temperature in degrees Celsius
T:dBA	total dBA, the logarithmic sum of P:dBA and E:dBA. This estimate is assumed to be the slow response maximum A-Weighted Sound Level.
V_L	aircraft level flyover speed (expressed in knots)

Takeoff Operation

V_y	speed for best rate of climb at sea level (knots)
D_{50}	takeoff distance to 50 feet above ground level
θ_1	initial climb angle (degrees)
R/C	maximum rate of climb at sea level (feet per minute)
P_c	power required to maintain level flight at cruise speed V_c (BHP)
V_c	cruise speed (Knots)
F_o	thrust required to maintain level flight at V_y (pounds)
C_L	coefficient of lift

C_D	coefficient of drag
C	a constant accounting for loss of altitude in gear retraction
θ_2	climb angle for the second segment of takeoff (degrees)
B	ratio of climb power to takeoff power (assumed to equal 0.83)
A	ratio of cruise horsepower to maximum rated horsepower (typically 0.65)
W	takeoff gross weight (pounds)
dF	thrust available for climb during θ_1 climbout (pounds)

The remainder of Section 2 is based on an FAA contractor report prepared by Bolt, Beranek and Newman, (Reference 3).

2.1 Approach Operation - During approach, it is assumed that engine exhaust noise is the dominant source of acoustical energy. The approach noise prediction model is applicable only to aircraft with reciprocating engines. Key modeling assumptions include:

1. Aircraft operate at maximum certificated landing weight.

2. Approach speed over the FAR-36 Appendix C measurement position (2000 meters from the runway threshold) is equal to 1.3 times the stall speed with gear down and landing flaps (V_{SO}).

3. All single engine aircraft are assumed to descend at a stable approach angle of 5 degrees when passing over the Appendix C approach measurement position. In the case of multi-engine aircraft an approach angle of 3 degrees is assumed. Using these approach angles the single engine aircraft altitude is 624 feet and the multi-engine aircraft altitude is 395 feet over a ground location 2000 meters from the runway threshold.

4. It is assumed that approach power for single engine aircraft is 0.2 times total brake horsepower. In the case of twin engine aircraft an approach power of 0.3 times total brake horsepower is assumed.

The noise estimation model is structured to compute noise levels at a ground location 2000 meters from the runway threshold.

The general empirical equation for maximum dBA due to engine exhaust noise is given below:

$$E{:}dBA = 113 + 10 \log (TBHP/h^{2.4})$$

where TBHP is total brake horsepower (considering both engines) and h is the aircraft altitude above ground level in feet.

This equation can be simplified for the single engine and multi-engine cases as follows:

Single Engine - E:dBA = 39 + 10 log (TBHP)

Multi-Engine - E:dBA = 45.5 + 10 log (TBHP)

These equations express noise level as a sole function of engine horsepower without consideration of exhaust muffler configuration. In order to refine the approach portion of the predictive model it may be possible to assign a constant to account for muffler performance (when applicable). The equations have been derived from a set of empirical data which necessarily reflects particular exhaust configurations.

The Sound Exposure Level (SEL) is estimated using the following equation:

SEL = E:dBA + 10 log $(\frac{h}{v})$-2 where h is the aircraft altitude in feet and v is the aircraft velocity in knots. For approach operations $v = 1.3\ V_{SO}$ and h is either 394 feet (twin) or 624 feet (single engine). The term 10 log $(\frac{h}{v})$ is essentially a duration correction as (h/v) is a unit of time (seconds). The constant (-2) accounts for the difference in units.

Summary of Required Inputs

TBHP : used to compute E:dBA

V_{SO} : used to compute SEL

Single or twin engine: used to identify height over the measurement site

2.2 Level Flyover Operation - Although level flyover data are not presented in this report (or in AC 36-3B) the methodology for estimating level flyover noise is set down in order to introduce the propeller noise equation used in subsequent sections.

In level flight with propeller helical tip Mach numbers greater than 0.8 noise levels are considered to be generated entirely by the prop. In cases when the helical tip Mach number is less than 0.8, the contribution of engine noise is also considered.

Propeller Noise - Propeller noise is estimated using the following empirical relationship:

$$P:dBA = 169 + 240 (\log M_H) - 24 (\log h) + Ka + Kb$$

where; M_H = the helical tip Mach number

h = the altitude above ground level in feet

Ka = 3 for twin engine aircraft

= 0 for single engine aircraft

Kb = 4 for cut propellers

= 0 for standard uncut props.

This equation can be analyzed by components in order to clearly identify the basic physical relationships involved.

The first term (169) is simply the constant or y-intercept value which anchors the empirical function to the absolute noise level ordinate.

The term 240 log (M_H) is the most sensitive and important part of the equation. The constant (240) has been derived from Appendix F level flyover certification data acquired by an FAA contractor. It is worth noting that data recently assembled (unpublished) by the FAA display a slope of

approximately 193. Other sources suggest values ranging from 210 to nearly 300. The constant 240 is the least substantiated portion of the predictive scheme.

The third term (24 log h) reflects the influence of spherical spreading losses plus standard acoustical day atmospheric absorption. The constant (24) represents a propagation loss of about 7 dB per doubling distance.

The constant "Ka" simply accounts for energy addition of two noncoherent acoustical sources resulting in a 3dB increase in estimated sound level for twin engine aircraft.

The constant "Kb" reflects the increase in noise level resulting from the increase in propeller tip thickness ratio which occurs when a standard propeller tip is "cut" or shortened. The value assigned to Kb is 4 dB. This value is based on a limited set of information (Sipes and Rathgeber, 1977) cited in reference 10. The value of kB is shown to vary from 3 dB at M_H = 0.78 to 6 dB at M_H = 0.84 for a change in thickness ratio from 0.068 to 0.087. The parameter Kb may be a source of potential controversy and represents an area for future refinement. It is observed (reference 3) that cut props are more likely to be found on twin engine aircraft than on single engine aircraft. Nevertheless the predictive model applies the constant to single engine aircraft with cut props as well.

Calculation of M_H - The equations provided below are used in calculating the helical tip Mach number.

$$M_H = \frac{(V_R^2+V_T^2)^{\frac{1}{2}}}{c}$$

$$V_R = \frac{\text{Dia. x RPM}}{229.18} \text{ (feet per second)}$$

$V_T = V_L \times 1.688$, translational velocity in feet per second, where V_L is the level flyover velocity expressed in knots.

Dia = prop diameter expressed in inches

$c = 49.02 \times (T^oF + 459.67)^{\frac{1}{2}}$ = speed of sound

$T^oF = \frac{9}{5} T^oC + 32$

Engine Exhaust Noise - In a case where the helical tip Mach number is less than 0.8, the contribution of engine exhaust to overall noise level may become significant. This consideration is, however, applicable only to reciprocating engine aircraft. The relationship presented in Section 2.1,

$$E:dBA = 113 + 10 \log (TBHP/h^{2.4})$$

accounts for this contribution.

The P:dBA computed for propeller noise is then added logarithmically to the E:dBA, that is, T:dBA = 10 log (antilog E:dBA/10 + antilog P:dBA/10), If the tip Mach number is greater than or equal to 0.8, then T:dBA is equal to P:dBA.

Calculation of SEL - The SEL is calculated as described in Section 2.1, where the level flyover speed, V_L is equal to v, and the level flyover altitude is h.

$$SEL = T:dBA + 10 \log \left(\frac{h}{V_L}\right) - 2$$

User Input Parameters Required for Calculations

h: aircraft altitude used to establish propagation loss with distance

V_L: level flyover velocity used to compute helical tip Mach number and SEL

Prop RPM: prop RPM used to compute helical tip Mach number

Air Temperature: used to compute speed of sound which in turn is used to compute helical tip Mach number

2.3 Takeoff Operation - In the two previous cases the aircraft altitude above ground level (h) is a given parameter. The takeoff case, however, requires calculation of the aircraft height from consideration of performance parameters. After the altitude is established, the acoustical calculations follow the level flyover case (Sect. 2.2).

Performance Assumptions

1. Performance is based on standard day, zero wind, dry, zero gradient runway, at a sea level airport.

2. All aircraft operate at maximum takeoff gross weight.

3. All aircraft climb at an airspeed that provides the best rate-of-climb at sea level, V_y.

4. Aircraft with fixed pitch propellers use full throttle for takeoff and climb.

5. Aircraft with controllable pitch propellers and reciprocating engines takeoff and climb at full throttle and maximum rpm until reaching a height of 500 feet (152m), at which point a reduction is made to climb power. Where a climb power specification is not provided by the manufacturer, propeller revolutions of 2500 rpm were assumed.

Altitude for No Power Reduction Takeoff - In order to estimate the noise levels produced at the Appendix C takeoff measurement location, 6500 meters (21,325 feet) from start of takeoff roll, the height at this point needs to be estimated. When no power reduction is made in the climbout, the height can easily be estimated from the specifications published for the aircraft, assuming that the average rate-of-climb between sea level and an altitude of 2000 feet is 93 percent of sea level rate-of-climb, and that a small loss of height occurs, relative to a profile starting with best

rate-of-climb at 50 feet above the runway, due to acceleration from lift off to best rate-of-climb speed. For aircraft with fixed pitch propellers and fixed gear, an average height loss of 50 feet (15 meters) was observed.

With these assumptions, the following expressions are used to compute the height, in feet, at 21,325 feet (6500m).from start of takeoff roll.

$$h = (21{,}325 - D_{50})(0.93) \tan \theta_1$$

$$\theta_1 = \text{ARC SIN } \frac{R/C}{101.3 \times V_y}$$

where:

D_{50} = the takeoff distance to 50 feet

R/C = the maximum rate-of-climb at sea level in feet per minute

V_y = the airspeed in knots for maximum rate-of-climb at sea level

θ_1 = the climb angle

Altitude for Power Reduction Takeoff - The situation becomes somewhat more complicated if a power reduction is assumed during the climb, since rates-of-climb at reduced power settings are usually not provided in the published specifications. One can estimate the reduced power climb gradient if certain assumptions and approximations are made:

a. Propeller efficiency at cruise power and airspeed is 0.86.

b. The reduced propeller efficiency at V_y, compared to efficiency at cruise speeds, coupled with the difference between the power required for level flight at a speed equal to V_y and the power required at the airspeed for maximum lift to drag ratio, compensate to the point that the ratio of power required, P_c, at a specified cruise airspeed, V_c, to the power required,

P_y, at airspeed V_y, is approximated by:

$$\frac{P_c}{P_y} = \frac{1}{2}\left[\left(\frac{V_c}{V_y}\right)^3 + \left(\frac{V_y}{V_c}\right)\right]$$

c. The propeller efficiency at V_y and engine speed (rpm) for climb power is the same as that at V_y and the engine speed for takeoff power.

Using these assumptions, one can estimate (1) the thrust required to maintain level flight at V_y, F_o (which, when divided by weight equals the ratio of drag to lift coefficients, C_D/C_L), (2) the thrust available for climb at reduced power, and hence the reduced power climb gradient, assuming that climb power is maintained throughout the reduced power climb.

It is also assumed that the combination of altitude lost in the gear retraction and acceleration from lift-off speed to V_y phase, less the excess altitude gain during the transition from initial climb to power reduction climb, results in a net altitude loss of 75 feet (23 meters) as compared to straight-line segment approximations of the climb profile. The resulting estimate of height in feet at 21,325 feet from start of takeoff roll is given by:

$$h = 450 + (21{,}325 - D_{50} - \frac{450}{\tan \theta_1}) \tan \theta_2 - 25C$$

where: D_{50} and θ_1 are defined above, and C is a constant accounting for altitude loss in gear retraction.

$$\theta_2 = \text{ARC SIN } \frac{(B(F_o + dF) - F_o)}{W}$$

where: B = ratio of climb power to takeoff power, assumed to be 0.82 when "climb power" is not specified.

$F_o = \frac{326\ P_y}{V_y}$ thrust for level flight at V_y where (326) accounts for differences in units.

$$P_y = \frac{1.72}{\left(\frac{V_c}{V_y}\right)^3 + \left(\frac{V_y}{V_c}\right)}$$

where: A = ratio of cruise horsepower, P_c, to total brake horsepower, TBHP, at a specified cruise airspeed, V_c, at sea level. The constant 1.72 reflects the assumed 86% propeller efficiency (i.e., 0.86 x 2 = 1.72).

$dF = \frac{R/C \times W}{101.3\ V_y}$ thrust available for climb at θ_1

W = takeoff gross weight

C = 0 for fixed gear, 1 for retractable gear

Takeoff Noise Calculations - It is important that the aircraft RPM and engine power parameter applicable at a distance of 6500 meters from the start of takeoff roll are used in the noise level calculations.

For fixed pitch single engine aircraft the climb RPM (taken as 2400 if not otherwise specified) is used as prop RPM in computing V_R. The aircraft best rate of climb speed V_y is used in computing V_T (i.e., $V_T = 1.688 \times V_y$). Having computed M_H using V_T, V_R and c, the P:dBA is computed as shown in Section 2.2. The E:dBA is computed as shown in Section 2.1 where maximum brake horsepower is used in the equation.

$E{:}dBA = 113 + 10 \log \left[\frac{TBHP}{h^{2.4}}\right]$ The equation for SEL is also computed using V_y.

For variable pitch aircraft the exhaust noise is computed using the equation:

$$E{:}dBA = 113 + 10 \log \left[\frac{.83 \times TBHP}{h^{2.4}}\right]$$

the .83 accounts for the reduction in engine power over the measuring point. Similarly the climb RPM rather than the takeoff RPM is used in computing V_R, rotational tip speed. The speed for best rate of climb V_y is used for computing V_T as well as SEL.

3.0 Turbine Powered Propeller Driven Light Aircraft - For most of the turboprop aircraft listed in AC 36-3B, the noise estimates have been retained from AC 36-3A. The turbine engine exhaust noise and lower propeller tip speeds (geared props) preclude use of reciprocating engine empirical methodology presented in Section 2.

The FAA is currently assembling a more extensive data base of turboprop noise measurements and will be developing an empirical procedure for computing noise levels.

4.0 General Aviation Jet Noise Level Estimation - This section discusses noise estimation techniques utilized for General Aviation turbojet and turbofan powered aircraft.

In the case of certain general aviation jet aircraft, the appropriate maximum noise level one-third-octave frequency spectrum has been obtained from FAR-36 certification reports. The A-weighted sound level has been computed for each spectrum.

The noise levels of certain other general aviation jet aircraft have been converted to dBA from EPNL (Effective Perceived Noise Level) certification data using conversion factors derived from specific engine types. Table 4.1 provides a partial summary of FAA file data on the difference between EPNL and dBA for a variety of aircraft and engine types. These deltas have been derived from actual certification reports and noise measurement programs which employed test procedures similar to those specified in FAR-36. The deltas are "typical" differences for individual events and, while useful in making estimations of dBA given EPNL, or visa versa, they do not represent absolute conversions between certification EPNL values and dBA.

It is anticipated that this data base will be enhanced to include additional engine types, engine configurations and nacelle/combustor treatments.

TABLE 4.1
EPNL-dBA Delta Analysis
for Approximate FAR-36 Appendix C Testing Conditions

Aircraft	Type of Engine	No Engines	Gross Weight	T/O EPNL-dBA	App EPNL-dBA	Data Source
Lear Jet 35/36	Airesearch TFE 731-2 Turbofans	2	T/O 17,000 lbs App 14,300 lbs	10.9		BBN Report 2743 (22)
Hawker Siddeley 125 Series 700	Airesearch TFE 731-1H Turbofan	2	T/O 24,300 lbs App 22,000 lbs	11.6	7.3	HSA,HAD, Report 257 ACO409 (17)
NORD 262	Turbo Meca Bastan VIC Turboprops	2	T/O 23,370 lbs App 22,710 lbs	11.3	13.1	BBN Report 3290 (15)
Mohawk 298	UACL Pratt & Whitney PT6A-45A Turboprops	2	T/O 23,370 lbs App 22,710 lbs	12.2	11.5	BBN Report 3290 (15)
Short SD3-30	UACL Pratt & Whitney PT6A-45 Turboprops	2	T/O 22,000 lbs App 21,700 lbs	11.2		BBN Report 3162 (14)
SAGA 731 Jet Star	Airesearch TFE 731-3 Turbofans	4	T/O 43,750 lbs App 36,000 lbs	12.6	6.6	BBN Report 3168 (23)
NA265-60 Sabreliner	Pratt & Whitney JT12A-8 Turbojets	2	T/O 20,000 lbs App 17,500 lbs	7.4	3.0	BBN Report 3282R (21)
Lear Jet Model 25	General Electric CJ-610-6	2	T/O 15,000 lbs App 13,300 lbs	6.8		BBN Report 2960 (16)
Lear Jet Model 24D	General Electric CJ-610-6	2	T/O 13,500 lbs App 11,880 lbs	11.4		BBN Report 2935R (20)
NA265-80 Sabreliner	General Electric CF700-2D-2 Turbofans	2	T/O 23,300 lbs App 22,000 lbs	16.4		BBN Report 2597 (19)
NA265-65 Sabreliner	Airesearch TFE 731-3R-1B Turbofans	2	T/O 24,000 lbs App 21,755 lbs	13.6	10.2	BBN Report 4202 (18)
Canadair Challenger CL-600	ALF502L AVCO LYCOMING	2	T/O 36,000 lbs App 33,000 lbs	7.0	8.2	BBN Report 4213 (12)
Falcon 10	Airesearch TFE-731-2	2	T/O 18,000 lbs App 17,200 lbs	13.2	10.0	DASS-BREG Rep 9342(11)
Lockheed JetStar	Pratt & Whitney JT-12A-8	4	T/O 42,000 lbs App 35,000 lbs	9.0	8.4	FAA-EQ-73-1 (13)
Gulfstream II	Rolls Royce Spey MK511-8	2	T/O 57,500 lbs App 51,430 lbs	13.0	11.0	FAA-EQ-73-1 (13)
Jet Commander 1121 (Rockwell)	General Electric CJ-610	2		11.0	10.0	FAA-EQ-73-1 (13)
BAC-1-11 (200)	Rolls-Royce Spey MK-506 or MK-511	2	T/O 79,000 lbs App 69,000 lbs		10.75	FAA-EQ-73-1 (13)
Cessna Citation 500 Series	Pratt & Whitney JT-15D-1	2	T/O 10,350 lbs App 9,900 lbs		11.3	FAA-EQ-73-1 (13)

5.0 Large Jet Aircraft Noise Level Estimation Using the FAA Integrated Noise Model (INM) - The noise levels of many of the large jet aircraft included in this Advisory Circular have been derived from FAR 36 certification EPNL values using the FAA INM.

The FAA Integrated Noise Model (INM) data base contains families of thrust-distance-noise (TDN) curves for 44 different large jet transports. These TDN curves relate the various noise metrics, Effective Perceived Noise Level (EPNL), Maximum A-Weighted (dBA) and Sound Exposure Level (SEL), to slant distance.

The starting point in this noise estimation technique is the FAR 36 certification EPNL value, the appropriate engine thrust (actual or estimated) and the aircraft airspeed used in the test. The test EPNL value is first adjusted or normalized to a speed of 160 knots so that the INM thrust-distance-EPNL curves can be utilized, (the INM curves are all referenced to 160 knots). The analysis then proceeds as follows, (see Figure 5.1):

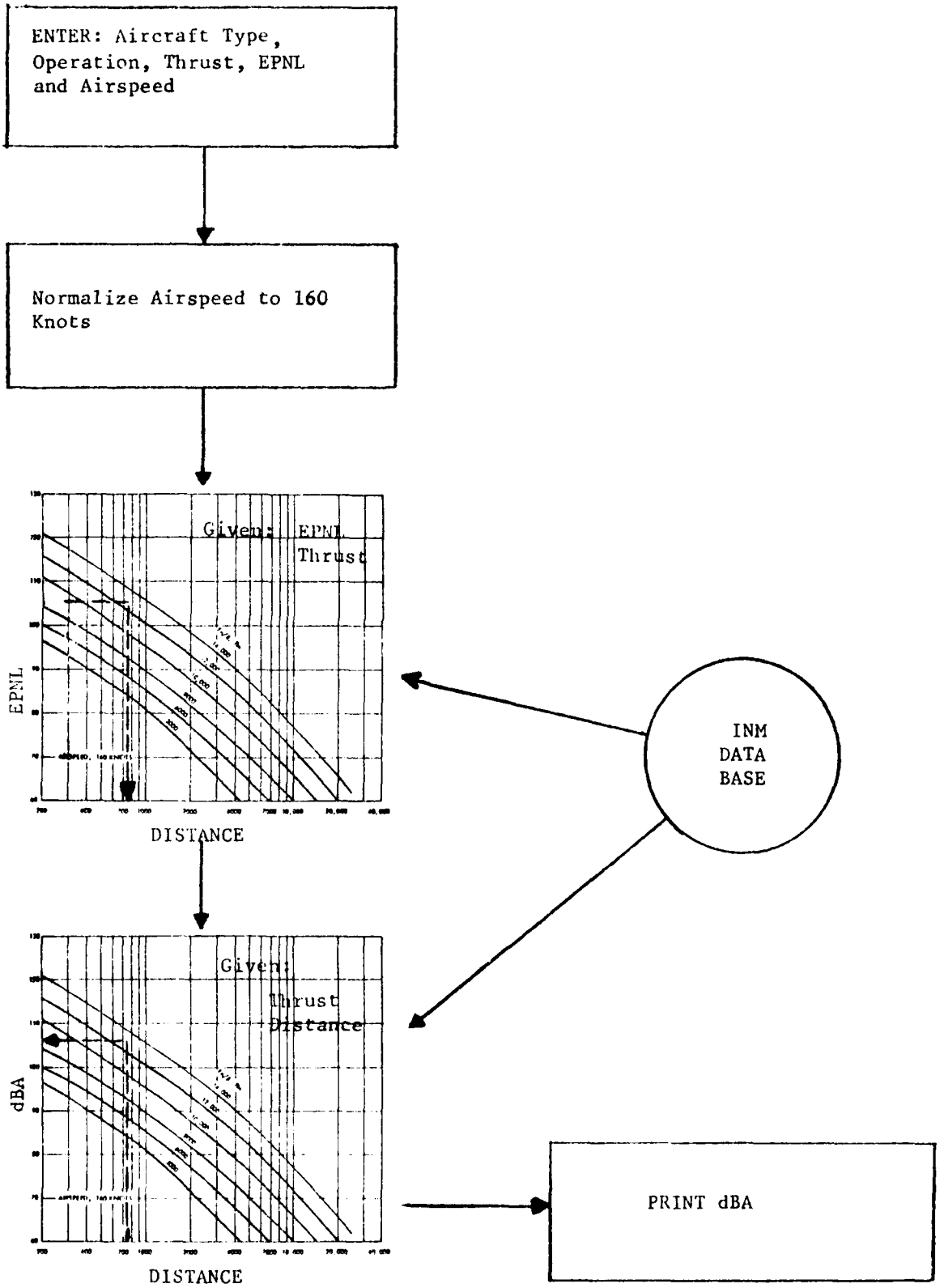
1. Enter EPNL and read across to the appropriate thrust, then read down to determine the distance (aircraft to observer during certification test).

2. On the next graph enter the distance (just determined above) and read up to the appropriate thrust curve, then read to the left to determine the value of dBA.

In actuality this analysis is conducted using a computer rather than graphically but the procedure is the same.

INM Noise Estimation Methodology

Figure 5.1



6.0 Aircraft Noise Level Estimates Provided by Aircraft Manufacturers - The noise levels of certain large jet aircraft have been derived from data provided to the FAA directly by aircraft manufacturers. Data submittals typically have included aircraft noise level data plotted versus distance for numerous weights, power settings and flap configurations. These noise level estimates are based on the set of parameters and conditions which correspond most nearly to the testing requirements of FAR 36.

Table 6.1 lists the aircraft for which data were submitted by the manufacturers.

Table 6.1

Manufacturer Provided Data

AIRCRAFT MANUFACTURER	AIRCRAFT MODEL	ENGINE MODEL	MAXIMUM TAKEOFF WEIGHT Lbs/1000
BAC	1-11-200	MK506 W/HUSHKIT	80.0
BAC	1-11-200	SPEY MK506	80.0
BAC	1-11-400	MK511 W/HUSHKIT	89.5
BAC	1-11-400	SPEY MK511	89.5
BOEING	B-727-100	JT8D-7FCD	160.5
BOEING	B-727-100	JT8D-7FCD	160.5
BOEING	B-727-100	JT8D-9FCD	160.5
BOEING	B-727-100	JT8D-7FCD	169.5
BOEING	B-727-100	JT8D-9FCD	169.5
BOEING	B-727-100	JT8D-9FCD	169.5
BOEING	B-727-200	JT8D-7QN	172.5
BOEING	B-727-200	JT8D-7QN	172.5
BOEING	B-727-200	JT8D-9QN	172.5
BOEING	B-727-200	JT8D-15QN	184.2
BOEING	B-727-200	JT8D-15QN	184.2
BOEING	B-727-200	JT8D-9QN	184.8
BOEING	B-727-200	JT8D-9QN	184.8
BOEING	B-727-200	JT8D-15QN	190.5
BOEING	B-727-200	JT8D-17QN	190.5
BOEING	B-727-200	JT8D-15QN	190.5
BOEING	B-727-200	JT8D-17QN	190.5
BOEING	B-727-200	JT8D-17RQN	197.0
BOEING	B-727-200	JT8D-17RQN	197.0
BOEING	B-727-200	JT8D-17QN	208.1
BOEING	B-727-200	JT8D-17QN	208.1
BOEING	B-727-200	JT8D-17RQN	208.0
BOEING	B-727-200	JT8D-17RQN	208.0
BOEING	B-737-200	JT8D-9QN	109.0
BOEING	B-737-200	JT8D-9QN	109.0
BOEING	B-737-200	JT8D-9QN	114.5
BOEING	B-737-200	JT8D-9QN	114.5
BOEING	B-737-200	JT8D-15QN	115.5
BOEING	B-737-200	JT8D-15QN	115.5
BOEING	B-737-200	JT8D-17QN	115.5
BOEING	B-737-200	JT8D-15QN	117.0
BOEING	B-737-200	JT8D-9QN	117.0
BOEING	B-737-200	JT8D-15QN	117.0
BOEING	B-737-200	JT8D-9QN	117.0
BOEING	B-737-200	JT8D-17QN	122.5
BOEING	B-737-200	JT8D-17QN	122.5
CESSNA	CITATION I	JT15D-1A	11.9
CESSNA	CITATION II	JT15D-4	13.3
CESSNA	C500	JT15D-1	11.5
GULFSTREAM AMERICAN	GULFSTREAM I	MK529 W/HUSHKIT	35.1
GULFSTREAM AMERICAN	GULFSTREAM I	RR DART MK529	35.1
GULFSTREAM AMERICAN	695	TPE-331-10	10.3
HAWKER SIDDELEY	HS-125-1A	VIPER 522	21.2
HAWKER SIDDELEY	HS-125-1A	TPE-731-3	21.2
HAWKER SIDDELEY	HS-125-3A/R	VIPER 522	22.7
HAWKER SIDDELEY	HS-125-3A/RA	TPE-731-3	23.6
HAWKER SIDDELEY	HS-125-400A	TPE-731-3	25.5
HAWKER SIDDELEY	HS-125-700A	TPE-731-3R	25.5
HAWKER SIDDELEY	HS-748 SERIES 2A	RR DART MK532-2L	44.5
HAWKER SIDDELEY	HS-748 SERIES 2B	MK535 W/HUSHKIT	46.5
HAWKER SIDDELEY	HS-748 SERIES 2B	RR DART MK535	46.5

Table 6.1

Manufacturer Provided Data (CONT)

MCDONNELL DOUGLAS	DC10-10	CF6-6D1	386.5
MCDONNELL DOUGLAS	DC10-10	CF6-6D1	386.5
MCDONNELL DOUGLAS	DC10-10	CF6-6D	410.0
MCDONNELL DOUGLAS	DC10-10	CF6-6D	410.0
MCDONNELL DOUGLAS	DC10-10	CF6-6D	440.0
MCDONNELL DOUGLAS	DC10-10	CF6-6D1	440.0
MCDONNELL DOUGLAS	DC10-10	CF6-6D	440.0
MCDONNELL DOUGLAS	DC10-10	CF6-6D1	440.0
MCDONNELL DOUGLAS	DC10-30	CF6-6K	410.0
MCDONNELL DOUGLAS	DC10-30	CF6-6K	450.0
MCDONNELL DOUGLAS	DC10-30	CF6-50A	517.5
MCDONNELL DOUGLAS	DC10-30	CF6-50A	517.5
MCDONNELL DOUGLAS	DC10-30	CF6-50C2	550.0
MCDONNELL DOUGLAS	DC10-30	CF6-50C2B	550.0
MCDONNELL DOUGLAS	DC10-30	CF6-50C1	562.0
MCDONNELL DOUGLAS	DC10-30	CF6-50A	565.0
MCDONNELL DOUGLAS	DC10-30	CF6-50A	565.0
MCDONNELL DOUGLAS	DC10-30	CF6-50C	565.0
MCDONNELL DOUGLAS	DC10-30	CF6-50C1	572.0
MCDONNELL DOUGLAS	DC10-30	CF6-50C1	590.0
MCDONNELL DOUGLAS	DC10-30	CF6-50C2	590.0
MCDONNELL DOUGLAS	DC10-30	CF6-50C2B	590.0
MCDONNELL DOUGLAS	DC10-40	JT9D-20	430.0
MCDONNELL DOUGLAS	DC10-40	JT9D-20	430.0
MCDONNELL DOUGLAS	DC10-40	JT9D-20	484.0
MCDONNELL DOUGLAS	DC10-40	JT9D-20	484.0
MCDONNELL DOUGLAS	DC10-40	JT9D-20	530.0
MCDONNELL DOUGLAS	DC10-40	JT9D-20	530.0
MCDONNELL DOUGLAS	DC10-40	JT9D-59A	555.0
MCDONNELL DOUGLAS	DC10-40	JT9D-59A	555.0
MCDONNELL DOUGLAS	DC10-40	JT9D-59A	572.0
MCDONNELL DOUGLAS	DC10-40	JT9D-59A	572.0
MCDONNELL DOUGLAS	DC9-10	JT8D-7	90.7
MCDONNELL DOUGLAS	DC9-10	JT8D-7	90.7
MCDONNELL DOUGLAS	DC9-30	JT8D-9	108.0
MCDONNELL DOUGLAS	DC9-30	JT8D-7	108.0
MCDONNELL DOUGLAS	DC9-30	JT8D-9	108.0
MCDONNELL DOUGLAS	DC9-30	JT8D-7	108.0
MCDONNELL DOUGLAS	DC9-30	JT8D-9	110.0
MCDONNELL DOUGLAS	DC9-30	JT8D-15	114.0
MCDONNELL DOUGLAS	DC9-30	JT8D-17	121.0
MCDONNELL DOUGLAS	DC9-40	JT8D-11	107.0
MCDONNELL DOUGLAS	DC9-40	JT8D-11	114.0
MCDONNELL DOUGLAS	DC9-40	JT8D-15	114.0
MCDONNELL DOUGLAS	DC9-50	JT8D-15	110.0
MCDONNELL DOUGLAS	DC9-50	JT8D-17	115.0
MCDONNELL DOUGLAS	DC9-50	JT8D-15	121.0
MCDONNELL DOUGLAS	DC9-50	JT8D-17	121.0
MCDONNELL DOUGLAS	DC9-50	JT8D-15	121.0
MCDONNELL DOUGLAS	DC9-50	JT8D-17	121.0
MCDONNELL DOUGLAS	DC9-80	JT8D-209	147.0
MCDONNELL DOUGLAS	DC9-80	JT8D-217	149.5
GULFSTREAM AMERICAN	GULFSTREAM III	SPEYMK511-8	68.2

7.0 FAA Noise Measurement Program/Noise Definition Data - The results of DOT/FAA noise measurement and assessment programs have been used to establish noise levels for certain aircraft. Several highly controlled aircraft noise measurement programs have been conducted by the FAA within the past five years. Data from a 1978 test (reported in Reference 7) has been used to establish noise levels for the Convair 580, the AeroCommander 690B, the Shrike Commander 500S, the King Air C90 and the Cessna 172 Skyhawk. The arithmetic average of maximum A-Weighted Sound Level data has been derived for appropriate runs in each test series. Copies of this report are available from the FAA Office of Environment and Energy, (FAA-EE-80-26).

References

Ref. 1 "Community Noise Around General Aviation Airports from the Year 1975 to 2000", W. J. Galloway, R. L. Bennett, BBN Report 4442 (Draft Jan 1981)

Ref. 2 "Collection of Propeller-Aircraft Noise Certification Data", 1B-128-81/8-a M. Ahslwede, K, P. Anders, DFULR Technical Acoustics Division

Ref. 3 "Estimated Sound Levels at FAR Part 36 Appendix C Takeoff and Approach Positions for Appendix F and Other Propeller-Driven Aircraft", W. J. Galloway, BBN Report 3716, (Draft Aug 1978)

Ref. 4 Unpublished FAA FAR-36 Appendix F certification data.

Ref. 5 Society of Automotive Engineers Inc. Aerospace Information Report AIR-1407 "Prediction Procedure for Near-Field and Far-Field Propeller Noise"

Ref. 6 "Correction Procedures for Aircraft Noise Data, Volume V, Propeller Aircraft Noise", Wyle Research Report WR79-9

Ref. 7 "Noise Levels and Data Correction Analysis for Seven General Aviation Propeller Aircraft", D. W. Ford, E. S. Rickley, June 1980, (FAA-EE-80-26)

Ref. 8 "Investigation of Propeller Noise As A Function of Engine Power and Test Density Altitude", W. J. Galloway, March 1976, BBN Report 3170

Ref. 9 "Noise Emission Reduction Potential for Small Propeller Driven Civil Aircraft" July 1976, A. J. Campanella, FAA-W1-76-1967-1

Ref. 10 "The Influence of Design Parameters on Light Propeller Aircraft Noise", SAE Paper 770444, April 1977, R. K. Rathgeber, D. E. Sipes

Ref. 11 Doct 9342, "Falcon 10 Noise Certification, FAR Part 36", Avions Marcel Dassault-Breguet Aviation, Jan 1974

Ref. 12 Report 4213, "Canadair Challenger FAR Part 36 Noise Certification Program", Bolt Beranek and Newman, Feb 1980

Ref. 13 Report FAA-EQ-73-1, "Results of Noise Surveys of Seventeen General Aviation Type Aircraft", Federal Aviation Administration, Dec 1972

Ref. 14 Report 3162, "Shorts SD3.30 FAR Part 36 Certification Program", Bolt Beranek and Newman, Jan 1976

Ref. 15 Report 3290, "FAR Part 36 Noise Comparison Tests - Mohawk 298/Nord 262", Bolt Beranek and Newman, Aug 1976

Ref. 16 Report 2960, "Raisbeck MK11 Learjet 24 & 25 FAR Part 36 Certification Program", Bolt Beranek and Newman, Nov 1975

Ref. 17 Report HSA. HAD. 257. ACO409, "HS125 Series 700 Compliance with FAR Part 36 Noise Standards, C of A. Report No. 34", Hawker Siddeley Aviation Ltd., April 1977

Ref. 18 Report 4202, "NA 265-65 Sabreliner FAR Part 36 Noise Certification Program", Bolt Beranek and Newman, Sept 1979

Ref. 19 Report 2597, "Sabreliner NA 265-80 FAR Part 36 Certification Program", Bolt Beranek and Newman, Nov 1973

Ref. 20 Report 2935R, "Learjet Model 24D FAR Part 36 Certification Program", Bolt Beranek and Newman, Nov 1975

Ref. 21 Report 3282R, "NA 265-60 Sabreliner FAR Part 36 Noise Certification Program", Bolt Beranek and Newman, Nov 1976

Ref. 22 Report 2745, "Learjet Models 35/36 FAR Part 36 Certification Program", Bolt, Beranek and Newman, June 1974

Ref. 23 Report 3168, "Saga 731 Jetstar FAR Part 36 Noise Certification Program," Bolt, Beranek and Newman, Mar 1976

Appendix A

Piston Powered Propeller
Driven Light Aircraft
Noise Estimation Data Sheets

Glossary of Abbreviations Used In Appendix A

Prop:	Propeller Identification
Dia :	Propeller Diameter (inches)
R/C :	Maximum rate of climb of sea level (fee per minute)
V_Y :	Speed for best rate of climb at sea level (knots)
D_{50} :	Takeoff distance to 50 feet above ground level
Alt. @ 6500M:	Altitude at a distance of 6500M from start of takeoff roll
GAM 1:	Initial climb angle (degrees)
GAM 2:	Climb angle for the second segment of takeoff (degrees)
dBA:	A-Weighted sound level in dB
SEL:	Sound exposure level in dB
C =	Speed of sound (feet per second)
App. Power:	Approach power
Stall Spd:	Staff speed (knots)
App: Speed:	Approach speed (knots)

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH A-23 "MUSKETEER
WEIGHT: 2350 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL IO-360-A
165 BHP(EA.)
PROP: SENSENICH M74DC-0-60
DIA.: 74.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 770 FPM (AT T/O RPM)
VY: 72 KTS
D50: 2022 FT
ALT.@ 6500M: 1904. FT
GAM 1 : 6.1 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.69 TEMP: 25C C:1135. FPS
DBA: 57.7
SEL: 69.9

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 33.0 HP
STALL SPD: 57 KTS
APP SPEED: 74.1 KTS
DBA: 61.2
SEL: 68.4

REFERENCE MATERIAL: P.O.H. BEECH A-23 12/79

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH C23 "SUNDOWNER"
WEIGHT: 2450 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-360-A4J
180 BHP(EA.)
PROP: SENSENICH 76EM8S5-0-60 (2BLD)
DIA.: 76.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2425
R/C: 792 FPM (AT T/O RPM)
VY: 78 KTS
D50: 2000 FT
ALT.@ 6500M: 1800. FT
GAM 1 : 5.7 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.72 TEMP: 25C C:1135. FPS
DBA: 59.9
SEL: 71.5

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 36.0 HP
STALL SPD: 51 KTS
APP SPEED: 66.3 KTS
DBA: 61.6
SEL: 69.3

****

USA CERTIFICATION -73.30 DBA AT 69 F

REFERENCE MATERIAL: PILOT INFO. MANUAL

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH A24R "SIERRA"
WEIGHT: 2750 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-360-A1B
200 BHP(EA.)
PROP: MCCAULEY 78FBM-1.5
DIA.: 76.50 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 874 FPM (AT T/O RPM)
VY: 81 KTS
D50: 1980 FT
ALT.@ 6500M: 1767. FT
GAM 1 : 6.1 DEG.
GAM 2 : 5.1 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 65.1
SEL: 76.5

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 40.0 HP
STALL SPD: 57 KTS
APP SPEED: 74.1 KTS
DBA: 62.0
SEL: 69.2

****

SWISS CERTIFICATION =74.00 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. 6/80

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH C24R "SIERRA"
WEIGHT: 2750 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-360-A1B6
200 BHP(EA.)
PROP: HARTZELL F7666A (2BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 925 FPM (AT T/O RPM)
VY: 85 KTS
D50: 1600 FT
ALT.@ 6500M: 1570. FT
GAM 1 : 6.2 DEG.
GAM 2 : 4.2 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 63.0
SEL: 73.6

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 40.0 HP
STALL SPD: 54 KTS
APP SPEED: 70.2 KTS
DBA: 62.0
SEL: 69.5

****

USA CERTIFICATION =73.60 DBA AT 70 F

REFERENCE MATERIAL: PILOT INFO. MANUAL

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 35 B33
WEIGHT: 3000 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL IO-470-K
225 BHP(EA.)
PROP: MCCAULEY 84B-0 (2BLD)
DIA.: 84.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 960 FPM (AT T/O RPM)
VY: 90 KTS
D50: 1380 FT
ALT.@ 6500M: 1613. FT
GAM 1 : 6.0 DEG.
GAM 2 : 4.3 DEG.
TIP SPEED: MACH 0.82 TEMP: 25C C:1135. FPS
ONLY PROP GENERATED NOISE CONSIDERED
IF TIP SPEED > MACH.8
DBA: 71.1
SEL: 81.6

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (3 DEG. GLIDESLOPE)

APP POWER: 45.0 HP
STALL SPD: 54 KTS
APP SPEED: 70.2 KTS
DBA: 62.5
SEL: 70.0

****

SWISS CERTIFICATION =78.00 DBA AT 25 C

REFERENCE MATERIAL: A.F.M. 6/77

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 35-C33A "DEBONAIR"
WEIGHT: 3300 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL IO-520-B
285 BHP(EA.)
PROP: MCCAULEY 84B-0 (2BLD)
DIA.: 84.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1135 FPM (AT T/O RPM)
VY: 96 KTS
D50: 1225 FT
ALT.@ 6500M: 1833. FT
GAM 1 : 6.7 DEG.
GAM 2 : 4.9 DEG.
TIP SPEED: MACH 0.82 TEMP: 25C C:1135. FPS
ONLY PROP GENERATED NOISE CONSIDERED
IF TIP SPEED > MACH.8
DBA: 69.9
SEL: 80.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 57.0 HP
STALL SPD: 51 KTS
APP SPEED: 66.3 KTS
DBA: 63.5
SEL: 71.3

****

SWISS CERTIFICATION =83.00 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. 10/77

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH F33A "BONANZA"
WEIGHT: 3400 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL IO-520 BA
285 BHP(EA.)
PROP: MCCAULEY 84B-0 (2BLD)
DIA.: 84.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1160 FPM (AT T/O RPM)
VY: 96 KTS
D50: 1700 FT
ALT.@ 6500M: 1816. FT
GAM 1 : 6.8 DEG.
GAM 2 : 5.0 DEG.
TIP SPEED: MACH 0.82 TEMP: 25C C:1135. FPS
ONLY PROP GENERATED NOISE CONSIDERED
IF TIP SPEED > MACH.8
DBA: 70.0
SEL: 80.8

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 57.0 HP
STALL SPD: 53 KTS
APP SPEED: 68.9 KTS
DBA: 63.5
SEL: 71.1

****

USA CERTIFICATION =78.10 DBA AT 79 F

REFERENCE MATERIAL: P.O.H. 3/79

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH C35 "BONANZA"
WEIGHT: 2700 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL E-185-11
205 BHP(EA.)
PROP: BEECH 215-207-88 (2BLD)
DIA.: 88.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1040 FPM (AT T/O RPM)
VY: 87 KTS
D50: 1400 FT
ALT.@ 6500M: 1794. FT
GAM 1 : 6.8 DEG.
GAM 2 : 4.9 DEG.
TIP SPEED: MACH 0.86 TEMP: 25C C:1135. FPS
ONLY PROP GENERATED NOISE CONSIDERED
IF TIP SPEED > MACH.8
DBA: 74.6
SEL: 85.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 41.0 HP
STALL SPD: 48 KTS
APP SPEED: 62.4 KTS
DBA: 62.1
SEL: 70.1

****

SWISS CERTIFICATION -74.00 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. 1/77

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH E35 "BONANZA"
WEIGHT: 2725 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL E-225-8
225 BHP(EA.)
PROP: BEECH 215-201-88
DIA.: 88.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1040 FPM (AT T/O RPM)
VY: 90 KTS
D50: 1425 FT
ALT.@ 6500M: 1745. FT
GAM 1 : 6.5 DEG.
GAM 2 : 4.7 DEG.
TIP SPEED: MACH 0.86 TEMP: 25C C:1135. FPS
ONLY PROP GENERATED NOISE CONSIDERED
IF TIP SPEED > MACH.8
DBA: 75.0
SEL: 85.8

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 45.0 HP
STALL SPD: 48 KTS
APP SPEED: 62.4 KTS
DBA: 62.5
SEL: 70.5

****

SWISS CERTIFICATION =74.00 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. 10/76

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH K35 & M35 "BONANZA"
WEIGHT: 2950 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL IO-470-C
250 BHP(EA.)
PROP: BEECH 278-100-7
DIA.: 82.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1240 FPM (AT T/O RPM)
VY: 90 KTS
D50: 1400 FT
ALT.@ 6500M: 2125. FT
GAM 1 : 7.8 DEG.
GAM 2 : 5.8 DEG.
TIP SPEED: MACH 0.80 TEMP: 25C C:1135. FPS
DBA: 69.9
SEL: 81.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 50.0 HP
STALL SPD: 52 KTS
APP SPEED: 67.6 KTS
DBA: 63.0
SEL : 70.6

REFERENCE MATERIAL: P.O.H. 6/75

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH V35B "BONANZA"
WEIGHT: 3400 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL IO 520 B
285 BHP(ELA.)
PROP: MCCAULLEY 82NB 2 (3B3D)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1167 FPM (AT T/O RPM)
VY: 96 KTS
BRO: 1769 FT
ALT.@ 6500M: 1036. FT
GAM 1 : 6.9 DEG.
GAM 2 : 5.1 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 69.3
SEL: 80.2

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 424 FT (5 DEG. GLIDESLOPE)

APP POWER: 57.0 HP
STALL SPD: 51 KTS
APP SPEED: 66.3 KTS
DBA: 63.5
SEL: 71.3

****

USA CERTIFICATION - 78.00 DBA AT 70 T

REF. MAT. : BB&N LETTER REPORT 1272 CONTRACT # W1 78 3805 1

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SLA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH A 36 "BONANZA"
WEIGHT: 3600 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL IO-520-BA
285 BHP(EA.)
PROP: MCCAULEY 84B-0 (2BLD)
DIA.: 84.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1030 FPM (AT T/O RPM)
VY: 96 KTS
D50: 2040 FT
ALT.@ 6500M: 1577. FT
GAM 1 : 6.1 DEG.
GAM 2 : 4.4 DEG.
TIP SPEED: MACH 0.92 TEMP: 25C C:1135. FPS
ONLY PROP GENERATED NOISE CONSIDERED
IF TIP SPEED > MACH.8
DBA: 71.5
SEL: 81.6

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (3 DEG. GLIDESLOPE)

APP POWER: 57.0 HP
STALL SPD: 52 KTS
APP SPEED: 67.6 KTS
DBA: 63.5
SEL: 71.2

REFERENCE MATERIAL: P.O.H. FOR A-36 BONANZA

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH B55 "BARON"
WEIGHT: 5100 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-470-L
260 BHP(EA.)
PROP: HARTZELL FC8465-6 (2BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1000 FPM (AT T/O RPM)
VY: 107 KTS
D50: 2190 FT
ALT.@ 6500M: 1425. FT
GAM 1 : 5.3 DEG.
GAM 2 : 4.0 DEG.
TIP SPEED: MACH 0.77 TEMP: 25C C:1135. FPS
DBA: 73.0
SEL: 82.3

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 156.0 HP
STALL SPD: 73 KTS
APP SPEED: 94.9 KTS
DBA: 72.7
SEL: 76.8

****

USA CERTIFICATION =81.30 DBA AT 67 F

REFERENCE MATERIAL: P.O.H. 11/78

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH B55 "BARON"
WEIGHT: 5100 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-470-L
260 BHP(EA.)
PROP: HARTZELL FC7663-2R (3BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1000 FPM (AT T/O RPM)
VY: 107 KTS
D50: 2190 FT
ALT.@ 6500M: 1425. FT
GAM 1 : 5.3 DEG.
GAM 2 : 4.0 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 70.8
SEL: 80.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 156.0 HP
STALL SPD: 73 KTS
APP SPEED: 94.9 KTS
DBA: 72.7
SEL: 76.8

****

USA CERTIFICATION =79.00 DBA AT 76 F

REFERENCE MATERIAL: P.O.H. 11/78

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH E55 "BARON"
WEIGHT: 5300 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-520-C
370 BHP(EA.)
PROP: HARTZELL PC8475-6 (2BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1682 FPM (AT T/O RPM)
VY: 104 KTS
D50: 1670 FT
ALT.@ 6500M: 2549. FT
GAM 1 : 9.2 DEG.
GAM 2 : 7.2 DEG.
TIP SPEED: MACH 0.77 TEMP: 59C C:1135. FPS
DBA: 67.1
SEL: 79.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 222.0 HP
STALL SPD: 73 KTS
APP SPEED: 94.9 KTS
DBA: 74.2
SEL: 78.4

****

USA CERTIFICATION =82.00 DBA AT 75 F

REFERENCE MATERIAL: A.F.M. BEECH E55 BARON

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH E55 "BARON"
WEIGHT: 5300 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-520-C
370 BHP(EA.)
PROP: HARTZELL PC7663-2R (3BLD)
DIA.: 74.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1682 FPM (AT T/O RPM)
VY: 104 KTS
D50: 1670 FT
ALT.@ 6500M: 2549. FT
GAM 1 : 9.2 DEG.
GAM 2 : 7.3 DEG.
TIP SPEED: MACH 0.73 TEMP: 25C C:1135. FPS
DBA: 63.2
SEL: 75.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 222.0 HP
STALL SPD: 73 KTS
APP SPEED: 94.9 KTS
DBA: 74.2
SEL: 78.4

****

USA CERTIFICATION =81.90 DBA AT 80 F

REFERENCE MATERIAL: A.F.M. BEECH E55 BARON

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 58 "BARON "
WEIGHT: 5400 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-520-C
285 BHP(EA.)
PROP: HARTZELL FC8475-6 (2BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1650 FPM (AT T/O RPM)
VY: 104 KTS
D50: 2100 FT
ALT.@ 6500M: 2476. FT
GAM 1 : 9.0 DEG.
GAM 2 : 7.1 DEG.
TIP SPEED: MACH 0.77 TEMP: 25C C:1135. FPS
DBA: 67.2
SEL: 79.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 171.0 HP
STALL SPD: 72 KTS
APP SPEED: 93.6 KTS
DBA: 73.1
SEL: 77.3

****

USA CERTIFICATION =82.10 DBA AT 75 F

REFERENCE MATERIAL: P.O.H. 5/79

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 58 "BARON"
WEIGHT: 5400 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-520-C
285 BHP(EA.)
PROP: HARTZELL FC7663-2R (3BLD)
DIA.: 74.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1650 FPM (AT T/O RPM)
VY: 104 KTS
050: 2100 FT
ALT.@ 6500M: 2476. FT
GAM 1 : 9.0 DEG.
GAM 2 : 7.1 DEG.
TIP SPEED: MACH 0.73 TEMP: 25C C:1135. FPS
DBA: 63.1
SEL: 74.9

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 171.0 HP
STALL SPD: 76 KTS
APP SPEED: 98.8 KTS
DBA: 73.1
SEL: 77.1

****

USA CERTIFICATION =82.80 DBA AT 80 F

REFERENCE MATERIAL: P.O.H 5/79

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 58P "BARON"
WEIGHT: 6200 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL TSIO-520WB
325 BHP(EA.)
PROP: HARTZELL FC7763DRB (3BLD)
DIA.: 77.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1500 FPM (AT T/O RPM)
VY: 115 KTS
D50: 2550 FT
ALT.@ 6500M: 1964. FT
GAM 1 : 7.4 DEG.
GAM 2 : 5.7 DEG.
TIP SPEED: MACH 0.76 TEMP: 25C C:1135. FPS
DBA: 66.0
SEL: 76.3

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 195.0 HP
STALL SPD: 75 KTS
APP SPEED: 97.5 KTS
DBA: 73.6
SEL: 77.7

****

USA CERTIFICATION =78.20 DBA AT 78 F

REFERENCE MATERIAL: P.O.H. 12/78

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 58TC "BARON"
WEIGHT: 6200 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL TSIO-520 WB
325 BHP(EA.)
PROP: HARTZELL FC7663DRB (3BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1450 FPM (AT T/O RPM)
VY: 115 KTS
DSO: 2530 FT
ALT.@ 6500M: 1899. FT
GAM 1 : 7.1 DEG.
GAM 2 : 5.5 DEG.
TIP SPEED: MACH 0.77 TEMP: 25C C:1135. FPS
DBA: 67.3
SEL: 77.4

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 195.0 HP
STALL SPD: 76 KTS
APP SPEED: 98.8 KTS
DBA: 73.6
SEL: 77.6

****

USA CERTIFICATION -80.60 DBA AT 61 F

REFERENCE MATERIAL: P.O.H. 12/78

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH B-60 "DUKE"
WEIGHT: 6775 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING TIO-541-E1C4
380 BHP(EA.)
PROP: HARTZELL FC7479B-2R (3BLD)
DIA.: 72.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1644 FPM (AT T/O RPM)
VY: 111 KTS
D50: 2625 FT
ALT.@ 6500M: 1234. FT
GAM 1 : 3.4 DEG.
GAM 2 : 6.6 DEG.
TIP SPEED: MACH 0.71 TEMP: 25C C:1135. FPS
DBA: 63.4
SEL: 74.4

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 226.0 HP
STALL SPD: 76 KTS
APP SPEED: 98.8 KTS
DBA: 74.3
SEL: 78.3

****

USA CERTIFICATION -81.70 DBA AT 81 F

REFERENCE MATERIAL: P.O.H. FOR BEECH B-60 DUKE

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 76 "DUCHESS"
WEIGHT: 3900 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING LO-360-A1G6D
180 BHP(EA.)
PROP: HARTZELL FJC-7666A (2BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1250 FPM (AT T/O RPM)
VY: 85 KTS
D50: 2200 FT
ALT.@ 6500M: 2237. FT
GAM 1 : 8.3 DEG.
GAM 2 : 6.4 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 62.1
SEL: 74.3

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 108.0 HP
STALL SPD: 60 KTS
APP SPEED: 78.0 KTS
DBA: 71.1
SEL: 76.1

****

USA CERTIFICATION =80.20 DBA AT 70 F

REFERENCE MATERIAL: PILOTS INFO. MANUAL 7/79

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 77 "SKIPPER"
WEIGHT: 1670 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-235-L2C
115 BHP(EA.)
PROP: SENSENICH 72CKS12-0-50 (2BLD)
DIA.: 72.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 725 FPM (AT T/O RPM)
VY: 65 KTS
D50: 2600 FT
ALT.@ 6500M: 1927. FT
GAM 1 : 6.3 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.67 TEMP: 25C C:1135. FPS
DBA: 55.7
SEL: 68.4

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 23.0 HP
STALL SPD: 46 KTS
APP SPEED: 59.8 KTS
DBA: 59.6
SEL: 67.8

****

USA CERTIFICATION =67.60 DBA AT 76 F

REFERENCE MATERIAL: PILOTS INFO. MANUAL 7/7/80

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: BEECH 65 B80 "QUEEN AIR"
WEIGHT: 7800 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING IGSO-540-A1D
380 BHP(EA.)
PROP: HARTZELL 10151-8R (3BLD)
DIA.: 93.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 1926
R/C: 1270 FPM (AT T/O RPM)
VY: 114 KTS
DSO: 2500 FT
ALT.@ 6500M: 1668. FT
GAM 1 : 6.3 DEG.
GAM 2 : 4.8 DEG.
TIP SPEED: MACH 0.71 TEMP: 25C C:1135. FPS
DBA: 66.3
SEL: 75.9

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 238.0 HP
STALL SPD: 79 KTS
APP SPEED: 102.7 KTS
DBA: 74.3
SEL: 78.1

REFERENCE MATERIAL: P.O.H. QUEEN AIR 10/72

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

[illegible] NOISE LEVELS FOR
[illegible] BEECHCRAFT

AIRCRAFT: BELLANCA 8GCBC
WEIGHT: 2150 LBS.(MAX.GROSS)
GLASS: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-235-C2C
108 BHP(I.A.)
PROP: MCCAULEY (C1B1D)
DIA.: 80.00 IN.
FIXED PITCH , STANDARD
****
[illegible] DATA
NOTE: [illegible] POSITIONED 4500M FROM BRP

[illegible] RPM: 2300
[illegible]: 1970 FPM (AT 1/0 RPM)
VX: 74 KTS
VXC: 1055 FT
[illegible] 500M: 2584. FT
[illegible]: 7.8 DEG.
[illegible]: N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
EGA: 58.3
SEL: 71.8
****
APPROACH DATA
NOTE: GIC POSITIONED 2000M FROM R/W THRESHOLD
[illegible] 424 FT (5 DEG. GLIDESLOPE)

APP [illegible]: 35.0 HP
[illegible]: 45 KTS
APP SPEED: 58.5 KTS
EPA: 61.6
SEL: 69.8

REFERENCE MATERIAL: P.O.H. FOR BELLANCA 8GCBC

NOTE:
[illegible] CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
[illegible] TO PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO [illegible] AT SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

[illegible] SEA LEVEL [illegible]
[illegible] METRIC AIRCRAFT

AIRCRAFT: BRITTEN NORMAN ISLANDER BN 2B
WEIGHT: 4200 LBS.(MAX.GROSS)
FLAPS: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING O 540-E4C5
260 BHP(EA.)
PROP: HARTZELL C8477-4
DIA.: 80.00 IN.
VARIABLE PITCH, CUT
****
TAKEOFF DATA
NOTE: MIC POSITIONED 4500M FROM BRF

ENG RPM: 2500
R/C: 1010 FPM (AT T/O RPM)
VY: 85 KTS
BSO: 1020 FT
ALT @ 4500M: 2986. FT
GAM 1 ?: 3.8 DEG.
GAM 2 ?: 2.1 DEG.
TIP SPEED: MACH 0.77 TEMP: 25C C:1135. FPS
OGA: 67.9
SCL: 81.9
****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 156.0 HP
STALL SPD: 80 KTS
APP SPEED: [illegible] KTS
OGA: [illegible]
SCL: [illegible]

REFERENCE MATERIAL: BRITISH REPORT

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PREDICTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 150
WEIGHT: 1600 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL O-200A
100 BHP(EA.)
PROP: MCCAULEY 0CM6948
DIA.: 69.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2300
R/C: 670 FPM (AT 1/0 RPM)
VY: 76 KTS
D/O: 1385 FT
ALT.@ 6500M: 1618. FT
G.M 1 : 5.0 DEG.
G.M 2 : N.A. FOR FIXED PITCH PROP
TAC SPEED: MACH 0.63 TEMP: 25C C:1135. FPS
DBA: 56.4
SEL: 67.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 20.0 HP
STALL SPD: 48 KTS
APP SPEED: 62.4 KTS
DBA: 59.0
SEL: 67.0

REFERENCE MATERIAL: OWNERS MANUAL MODEL 150 1974

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 150M "COMMUTER"
WEIGHT: 1600 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL O-200-A
100 BHP(EA.)
PROP: MCCAULEY OCM-6948
DIA.: 69.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 670 FPM (AT T/O RPM)
VY: 68 KTS
D50: 1385 FT
ALT.@ 6500M: 1810. FT
GAM 1 : 5.6 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.64 TEMP: 25C C:1135. FPS
DBA: 55.2
SEL: 67.5

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 20.0 HP
STALL SPD: 42 KTS
APP SPEED: 54.6 KTS
DBA: 59.0
SEL: 67.6

REFERENCE MATERIAL: P.O.H. CESSNA 150M 1977

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 152
WEIGHT: 1670 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-235-L2C
110 BHP(EA.)
PROP: MCCAULEY TCM-6958 (2BLD)
DIA.: 69.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 715 FPM (AT T/O RPM)
VY: 67 KTS
D50: 1340 FT
ALT.@ 6500M: 1967. FT
GAM 1 : 6.0 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.64 TEMP: 25C C:1135. FPS
DBA: 54.8
SEL: 67.4

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 22.0 HP
STALL SPD: 43 KTS
APP SPEED: 55.9 KTS
DBA: 59.4
SEL: 67.9

****

USA CERTIFICATION =65.80 DBA AT 8 C

REFERENCE MATERIAL: PILOTS INFO. MANUAL 5/18/80

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 170B
WEIGHT: 2200 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL C-145-2H
145 BHP(EA.)
PROP: MCCAULEY 78K-2
DIA.: 76.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 690 FPM (AT T/O RPM)
VY: 74 KTS
D50: 1820 FT
ALT.@ 6500M: 1265. FT
GAM 1 : 5.3 DEG.
GAM 2 : 3.2 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 67.6
SEL: 78.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 29.0 HP
STALL SPD: 44 KTS
APP SPEED: 57.2 KTS
DBA: 60.6
SEL: 69.0

REFERENCE MATERIAL: A.F.M. CESSNA 170B

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 172 "SKYHAWK"
WEIGHT: 2300 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-320-E2D
150 BHP(FA.)
PROP: MCCAULEY CTM 7553
DIA.: 76.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 645 FPM (AT T/O RPM)
VY: 82 KTS
D50: 1525 FT
ALT.@ 6500M: 1432. FT
GAM 1 : 4.4 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.71 TEMP: 25C C:1135. FPS
DBA: 61.4
SEL: 71.9

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 424 FT (3 DEG. GLIDESLOPE)

APP POWER: 30.0 HP
STALL SPD: 49 KTS
APP SPEED: 63.2 KTS
DBA: 60.8
SEL: 68.7

REFERENCE MATERIAL: OWNERS MANUAL MODEL 172 SKYHAWK

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 172RG "CARDINAL RG"
WEIGHT: 2800 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL TO-360 A1B6D
200 BHP(EA.)
PROP: MCCAULEY 78TCA 0 (2BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 860 FPM (AT T/O RPM)
VY: 93 KTS
D50: 1585 FT
ALT.@ 6500M: 1551. FT
GAM 1 : 5.9 DEG.
GAM 2 : 4.2 DEG.
TIP SPEED: MACH 0.76 TEMP: 35C C:1135. FPS
DBA: 64.9
SEL: 75.6

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 40.0 HP
STALL SPD: 52 KTS
APP SPEED: 67.6 KTS
DBA: 62.0
SEL: 69.6

****

USA CERTIFICATION =76.30 DBA AT 66 F

REFERENCE MATERIAL: P.O.H. 8/70

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 180
WEIGHT: 2800 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL O 470 L
230 HP(T.O.)
PROP: HARTZELL BHC3 J 2 (2BLD)
DIA.: 82.00 IN.
VARIABLE PITCH, CUT

****
TAKE-OFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2700
R/C: 1100 FPM (AT 2700 RPM)
VY: 76 KTS
D50: 1205 FT
ALT.@ 6500M: 2282. FT
GAM 1 : 8.2 DEG.
GAM 2 : 6.2 DEG.
TIP SPEED: MACH 0.80 TEMP: 25C C:1135. FPS
DBA: 68.8
SEL: 81.6

****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 46.6 HP
STALL SPD: 49 KTS
APP SPEED: 63.7 KTS
DBA: 62.6
SEL: 70.5

****
SWISS CERTIFICATION =75.00 DBA AT 25 C

REF. MAT. : BB&N REPORT 1279 CONTRACT # W1 78 3805 1

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM F.O.M. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SLA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 182P "SKYLANE"
WEIGHT: 2950 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL O 470 S
230 BHP(EA.)
PROP: MCCAULEY 90DCA 8 (2BLD)
DIA.: 82.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 890 FPM (AT T/O RPM)
VY: 69 KTS
D50: 1350 FT
ALT.@ 6500M: 1966. FT
GAM 1 : 7.3 DEG.
GAM 2 : 5.3 DEG.
TIP SPEED: MACH 0.79 TEMP: 25C C:1135. FPS
DBA: 70.2
SEL: 82.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 47.0 HP
STALL SPD: 50 KTS
APP SPEED: 65.0 KTS
DBA: 63.9
SEL: 70.4

REFERENCE MATERIAL: P.O.H. 182P 1976

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 182Q "SKYLANE"
WEIGHT: 2950 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL O-470-U
230 BHP(EA.)
PROP: MCCAULEY 90DCB-8 (2BLD)
DIA.: 82.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1010 FPM (AT T/O RPM)
VY: 71 KTS
D50: 1350 FT
ALT.@ 6500M: 2237. FT
GAM 1 : 8.1 DEG.
GAM 2 : 6.1 DEG.
TIP SPEED: MACH 0.79 TEMP: 25C C:1135. FPS
DBA: 68.9
SEL: 81.8

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 46.0 HP
STALL SPD: 50 KTS
APP SPEED: 65.0 KTS
DBA: 62.6
SEL : 70.4

****

USA CERTIFICATION =72.00 DBA AT 17 C

REFERENCE MATERIAL: P.O.H. 182Q 1977

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA A185F "SKYWAGON"
WEIGHT: 3350 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
TCM IO-520-D
300 BHP(EA.)
PROP: MCCAULEY 80UA-0 (3BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1010 FPM (AT T/O RPM)
VY: 83 KTS
D50: 1365 FT
ALT.@ 6500M: 1806. FT
GAM 1 : 6.9 DEG.
GAM 2 : 4.8 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 65.7
SEL: 77.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 60.0 HP
STALL SPD: 56 KTS
APP SPEED: 72.8 KTS
DBA: 63.8
SEL: 71.1

****

USA CERTIFICATION =78.90 DBA AT 23 C

REFERENCE MATERIAL: A.F.M. 10/72

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA TU206G "STATIONAIR 6"
WEIGHT: 3600 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
CONTINENTAL TSIO 520 M
310 HP(EA.)
PROP: MCCAULEY 90IFA 10 (3BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM DRP

CLIMB RPM: 2500
R/C: 1010 FPM (AT 1/0 RPM)
VY: 90 KTS
D50: 1643 FT
ALT.@ 6500M: 1626. FT
GAM 1 : 6.4 DEG.
GAM 2 : 4.3 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C 0:1135. FPS
DBA: 70.5
SEL: 81.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 62.0 HP
STALL SPD: 54 KTS
APP SPEED: 70.2 KTS
DBA: 63.9
SEL: 71.4

REF. MAT. : BB&N LETTER REPORT 1/79 CONTRACT # W1 79 3805 1

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 210 "CENTURION"
WEIGHT: 3800 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL IO-520-L
285 BHP(EA.)
PROP: MCCAULEY 80UA-0 (3BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 860 FPM (AT T/O RPM)
VY: 95 KTS
D50: 1900 FT
ALT.@ 6500M: 1324. FT
GAM 1 : 5.1 DEG.
GAM 2 : 3.6 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 69.2
SEL: 78.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 57.0 HP
STALL SPD: 56 KTS
APP SPEED: 72.8 KTS
DBA: 63.5
SEL: 70.9

****

USA CERTIFICATION =79.60 DBA AT 76 F

REFERENCE MATERIAL: CENTURION OWNERS MANUAL 1975

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

[illegible] LEVELS FOR
[illegible] AIRCRAFT

```
[illegible]        CESSNA T210L  "CENTURION"
[illegible]         3800 LBS.(MAX.GROSS)
[illegible]        RETRACTABLE
[illegible]        SINGLE  RECIPROCATING
                   CONTINENTAL TSIO-520-H
                   310 BHP(EA.)
[illegible]        MCCAULEY [illegible] 8 (3BLD)
[illegible]         80.00 IN.
                   VARIABLE PITCH, CUT
************************************************************
TAKEOFF DATA
[illegible] POSITIONED 2500M FROM BRT

[illegible] RPM:    2500
[illegible]         230 FPM (AT [illegible] RPM)
[illegible]         96 KTS
[illegible]        1203 FT
[illegible]        1424. FT
[illegible]        5.5 DEG.
[illegible]        3.9 DEG.
[illegible]        MACH 0.80    TEMP: 25C  C:1135. FPS
              ONLY PROP GENERATED NOISE CONSIDERED
              [illegible] TIP SPEED [illegible] MACH.8
DBA:               [illegible]4.1
[illegible]        83.8
************************************************************
APPROACH DATA
[illegible] POSITIONED 2000M FROM R/W THRESHOLD
          [illegible]  624 FT (5 DEG  GLIDESLOPE)

[illegible] POWER:      6[illegible].0 HP
STALL SPD:         56 KTS
[illegible] SPEED:       [illegible] KTS
DBA:               6[illegible]
[illegible]        [illegible]
************************************************************
[illegible] CERTIFICATION =80.00 DBA AT  25 C


[illegible] : [illegible] REPORT [illegible] CONTRACT # [illegible]

[illegible]
[illegible] CHARACTERISTICS TAKEN FROM [illegible] ARE
BASED ON [illegible] PERFORMANCE FOR A DRY, STANDARD DAY WITH
[illegible] AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.
```

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA T210M "CENTURION"
WEIGHT: 3800 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL TSIO 520-R
310 BHP(T.O.)
PROP: MCCAULEY 90DFA 10 (3BLD)
DIAM: 80.00 IN.
VARIABLE PITCH, CNT
****
TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
TOD: 1030 FT (AT 170 RPM)
VY: [illegible] KTS
ALT*: 1963 FT
ALT @ 6500M*: 1586 FT
[illegible]: 8.1 DEG
[illegible]: 3.3 DEG.
[illegible] TEMP: [illegible] [illegible] LBS
[illegible]: [illegible]
SEL: [illegible]
****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM RW THRESHOLD
(ALT [illegible] FT @ 3 DEG. GLIDESLOPE)

APP POWER: [illegible] HP
STALL SPEED: 58 KTS
APP SPEED: [illegible].8 KTS
[illegible]: 63.9
SEL: 71.2

REF. DATA: BBN REPORT LETTER 1/79 CONTRACT # WI 78 3805-1

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM T.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A 15 DEG. STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 310Q
WEIGHT: 5200 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-470-VO
260 BHP(EA.)
PROP: MCCAULEY 82NC-4 (3BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1540 FPM (AT T/O RPM)
VY: 109 KTS
D50: 1700 FT
ALT.@ 6500M: 2231. FT
GAM 1 : 8.0 DEG.
GAM 2 : 6.3 DEG.
TIP SPEED: MACH 0.77 TEMP: 25C C:1135. FPS
DBA: 68.5
SEL: 79.6

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 156.0 HP
STALL SPD: 70 KTS
APP SPEED: 91.0 KTS
DBA: 72.7
SEL: 77.0

****

SWISS CERTIFICATION =81.00 DBA AT 25 C

REFERENCE MATERIAL: A.F.M. 8/69

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA T310R
WEIGHT: 5500 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL TSIO-520 BB
285 BHP(EA.)
PROP: MCCAULEY 82NC-5.5 (3BLD)
DIA.: 76.50 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1700 FPM (AT T/O RPM)
VY: 105 KTS
D50: 1662 FT
ALT.@ 6500M: 2577. FT
GAM 1 : 9.2 DEG.
GAM 2 : 7.3 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 65.2
SEL: 77.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 171.0 HP
STALL SPD: 70 KTS
APP SPEED: 91.0 KTS
DBA: 73.1
SEL: 77.4

****

USA CERTIFICATION =82.00 DBA AT 16 C

REFERENCE MATERIAL: P.O.H. TURBO 310 1981

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 320C "SKYKNIGHT"
WEIGHT: 5200 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL TSIO-470-D
260 BHP(EA.)
PROP: MCCAULEY 84HF 3 (2BLD)
DIA.: 81.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1820 FPM (AT T/O RPM)
VY: 111 KTS
D50: 1890 FT
ALT.@ 6500M: 2576. FT
GAM 1 : 9.3 DEG.
GAM 2 : 7.3 DEG.
TIP SPEED: MACH 0.80 TEMP: 25C C:1135. FPS
DBA: 70.5
SEL: 82.2

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 156.0 HP
STALL SPD: 68 KTS
APP SPEED: 88.4 KTS
DBA: 72.7
SEL: 77.1

****

SWISS CERTIFICATION =83.00 DBA AT 25 C

REFERENCE MATERIAL: A.F.M. 4/64

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 337H "SKYMASTER"
WEIGHT: 4630 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL IO-360-G
210 BHP(EA.)
PROP: MCCAULEY 90DEA-12
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1085 FPM (AT T/O RPM)
VY: 97 KTS
D50: 1678 FT
ALT.@ 6500M: 1748. FT
GAM 1 : 6.3 DEG.
GAM 2 : 4.9 DEG.
TIP SPEED: MACH 0.76 TEMP: 25C C:1135. FPS
DBA: 70.5
SEL: 81.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 126.0 HP
STALL SPD: 61 KTS
APP SPEED: 79.3 KTS
DBA: 71.7
SEL: 78.7

****

USA CERTIFICATION =78.60 DBA AT 77 F

REFERENCE MATERIAL: P.O.H. 9/77

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 340A
WEIGHT: 5990 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL TSIO-520-MB
310 BHP(EA.)
PROP: MCCAULEY 82NC-5.5 (3BLD)
DIA.: 76.50 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1650 FPM (AT T/O RPM)
VY: 108 KTS
D50: 2180 FT
ALT.@ 6500M: 2354. FT
GAM 1 : 8.7 DEG.
GAM 2 : 6.8 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 66.3
SEL: 77.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 186.0 HP
STALL SPD: 71 KTS
APP SPEED: 92.3 KTS
DBA: 73.4
SEL: 77.7

****

USA CERTIFICATION =82.70 DBA AT 12 C

REFERENCE MATERIAL: CESSNA P.O.H. 11/3/80

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 401
WEIGHT: 6300 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL TSIO-520-E
300 BHP(EA.)
PROP: MCCAULEY 82NC-5.5 (3BLD)
DIA.: 76.50 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1610 FPM (AT T/O RPM)
VY: 110 KTS
D50: 2220 FT
ALT.@ 6500M: 2267. FT
GAM 1 : 8.3 DEG.
GAM 2 : 6.6 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 66.8
SEL: 77.9

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 180.0 HP
STALL SPD: 70 KTS
APP SPEED: 91.0 KTS
DBA: 73.3
SEL: 77.6

****

SWISS CERTIFICATION =79.00 DBA AT 25 C

REFERENCE MATERIAL: A.F.M. 9/66

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 402C "BUISNESSLINER"
WEIGHT: 6850 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL TSIO-520-VB
325 BHP(EA.)
PROP: MCCAULEY B2NC 5.5 (3BLD)
DIA.: 76.50 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1450 FPM (AT T/O RPM)
VY: 109 KTS
D50: 2805 FT
ALT.@ 6500M: 1982. FT
GAM 1 : 7.5 DEG.
GAM 2 : 5.9 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 68.2
SEL: 78.8

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 195.0 HP
STALL SPD: 71 KTS
APP SPEED: 92.3 KTS
DBA: 73.6
SEL: 77.9

****

USA CERTIFICATION =77.20 DBA AT 22 C

REFERENCE MATERIAL: 402 BUISNESSLINER 9/1/79

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 404 "TITAN"
WEIGHT: 8400 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL GTSIO-520-N1
375 BHP(EA.)
PROP: MCCAULEY 90UMB-0 (3BLD)
DIA.: 90.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 1900
R/C: 1575 FPM (AT T/O RPM)
VY: 102 KTS
050: 2367 FT
ALT.@ 6500M: 2228. FT
GAM 1 : 8.8 DEG.
GAM 2 : 6.4 DEG.
TIP SPEED: MACH 0.67 TEMP: 25C C:1135. FPS
DBA: 61.0
SEL: 72.4

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 225.0 HP
STALL SPD: 71 KTS
APP SPEED: 92.3 KTS
DBA: 74.3
SEL: 78.5

****

USA CERTIFICATION =81.60 DBA AT 20 C

REFERENCE MATERIAL: P.O.H. 1981

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 414A "CHANCELLOR"
WEIGHT: 6750 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
TCM TSIO 520 N
310 BHP(EA.)
PROP: MCCAULEY D2NC 5.5 (3BLD)
DIA.: 76.50 IN.
VARIABLE PITCH, CUT

****
TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1520 FPM (AT T/O RPM)
VY: 108 KTS
U50: 2595 FT
ALT.@ 6500M: 2127. FT
GAM 1 : 8.0 DEG.
GAM 2 : 6.3 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 67.4
SEL: 70.3

****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 186.0 HP
STALL SPD: 72 KTS
APP SPEED: 93.6 KTS
DBA: 73.4
SEL: 77.7

****
USA CERTIFICATION -79.10 DBA AT 13 C

REFERENCE MATERIAL: P.O.H. CHANCELLOR 1980

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

AIRCRAFT NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: CESSNA 421C "GOLDEN EAGLE"
WEIGHT: 7450 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL GTSIO 520 L
375 BHP(EA.)
PROP: MCCAULEY 20UMB-0
DIA.: 90.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 1900
R/C: 1850 FPM (AT T/O RPM)
VY: 111 KTS
D50: 2335 FT
ALT.@ 6500M: 2301. FT
GAM 1 : 9.5 DEG.
GAM 2 : 6.6 DEG.
TIP SPEED: MACH 0.69 TEMP: 25C C:1135. FPS
DBA: 60.7
SEL: 71.9

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 344 FT (3 DEG. GLIDESLOPE)

APP POWER: 225.0 HP
STALL SPD: 74 KTS
APP SPEED: 96.2 KTS
DBA: 74.3
SEL: 78.4

****

USA CERTIFICATION =80.30 DBA AT 19 C

REFERENCE MATERIAL: P.O.H. CESSNA 421 11/1/77

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: GULFSTREAM AMERICAN AA-1B "TRAINER"
WEIGHT: 1560 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-235-C2C
108 BHP(EA.)
PROP: MCCAULEY SCM7153 (2BLD)
DIA.: 71.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 705 FPM (AT T/O RPM)
VY: 77 KTS
D50: 1550 FT
ALT.@ 6500M: 1667. FT
GAM 1 : 5.2 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.66 TEMP: 25C C:1135. FPS
DBA: 56.8
SEL: 68.2

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 21.6 HP
STALL SPD: 52 KTS
APP SPEED: 67.6 KTS
DBA: 59.3
SEL: 67.0

REFERENCE MATERIAL: OWNERS MANUAL

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: GULFSTREAM AMERICAN AA-5A "CHEETAH"
WEIGHT: 2200 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-320-E2G
150 BHP(EA.)
PROP: MCCAULEY BTM7359 (2BLD)
DIA.: 73.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 660 FPM (AT T/O RPM)
VY: 79 KTS
050: 1600 FT
ALT.@ 6500M: 1516. FT
GAM 1 : 4.7 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.68 TEMP: 25C C:1135. FPS
DBA: 59.5
SEL: 70.3

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (3 DEG. GLIDESLOPE)

APP POWER: 30.0 HP
STALL SPD: 53 KTS
APP SPEED: 68.9 KTS
DBA: 60.8
SEL: 68.3

REFERENCE MATERIAL: P.O.H. 1977

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: GULFSTREAM AMERICAN 112 "COMMANDER"
WEIGHT: 2650 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-360C-1D6
200 BHP(EA.)
PROP: HARTZELL 7666A (2BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1020 FPM (AT T/O RPM)
VY: 90 KTS
D50: 1590 FT
ALT.@ 6500M: 1639. FT
GAM 1 : 6.4 DEG.
GAM 2 : 4.4 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 62.6
SEL: 73.2

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 40.0 HP
STALL SPD: 54 KTS
APP SPEED: 70.2 KTS
DBA: 62.0
SEL: 69.5

****

GERMAN CERTIFICATION =74.90 DBA AT 14 C

REFERENCE MATERIAL: A.F.M. MODEL 112 7/75

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: GULFSTREAM AMERICAN 560E "COMMANDER"
WEIGHT: 6500 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING GO-480-C1B6
280 BHP(EA.)
PROP: HARTZELL 8833-2 (3BLD)
DIA.: 86.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 1932
R/C: 1450 FPM (AT T/O RPM)
VY: 90 KTS
D50: 2150 FT
ALT.@ 6500M: 2528. FT
GAM 1 : 9.1 DEG.
GAM 2 : 7.3 DEG.
TIP SPEED: MACH 0.65 TEMP: 25C C:1135. FPS
DBA: 58.6
SEL: 71.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 168.0 HP
STALL SPD: 58 KTS
APP SPEED: 75.4 KTS
DBA: 73.0
SEL: 78.2

****

SWISS CERTIFICATION =83.00 DBA AT 25 C

REFERENCE MATERIAL: A.F.M. 560E

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: GULFSTREAM AMERICAN 680FL
WEIGHT: 8500 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING IGSO-540B1A
360 BHP(EA.)
PROP: HARTZELL 9349-0 (3BLD)
DIA.: 93.50 IN.
VARIABLE PITCH, STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 1920
R/C: 1285 FPM (AT T/O RPM)
VY: 110 KTS
D50: 2300 FT
ALT.@ 6500M: 1804. FT
GAM 1 : 6.6 DEG.
GAM 2 : 5.2 DEG.
TIP SPEED: MACH 0.71 TEMP: 25C C:1135. FPS
DBA: 63.9
SEL: 74.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 216.0 HP
STALL SPD: 71 KTS
APP SPEED: 92.3 KTS
DBA: 74.1
SEL: 78.4

REFERENCE MATERIAL: A.F.M. 680FL

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: MOONEY M20 C
WEIGHT: 2575 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING O-360-A1D
180 BHP(EA.)
PROP: HARTZELL 7664-2 (PBLD)
DIA.: 74.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 800 FPM (AT T/O RPM)
VY: 82 KTS
D50: 1395 FT
ALT@ 6500M: 1342. FT
GAM 1 : 5.2 DEG.
GAM 2 : 3.5 DEG.
TOP SPEED: MACH 0.72 TEMP: 25C C:1135. FPS
90A: 65.4
SEL: 75.3

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (3 DEG. GLIDESLOPE)

APP POWER: 36.0 HP
START FLR: 49 KTS
APP SPEED: 63.7 KTS
90A: 61.6
SEL: 69.4

REFERENCE MATERIAL: P.O.H. FOR THE MOONEY M20 C

NOTE:
COMPARE DATA RESULTS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-38 112 "TOMAHAWK II"
WEIGHT: 1670 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-235-L2C
112 BHP(EA.)
PROP: SENSENICH 72CK-0-56(2BLD)
DIA.: 72.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 718 FPM (AT T/O RPM)
VY: 70 KTS
D50: 1460 FT
ALT.@ 6500M: 1878. FT
GAM 1 : 5.8 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.67 TEMP: 25C C:1135. FPS
DBA: 55.9
SEL: 68.2

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 22.4 HP
STALL SPD: 49 KTS
APP SPEED: 63.7 KTS
DBA: 59.5
SEL: 67.4

****

SWISS CERTIFICATION =68.90 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. 6/30/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28 140 "CHEROKEE CRUISER"
WEIGHT: 2150 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-320-E3D
150 BHP(EA.)
PROP: SENSENICH 74DM6-0-58
DIA.: 74.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 630 FPM (AT T/O RPM)
VY: 75 KTS
D50: 1700 FT
ALT.@ 6500M: 1517. FT
GAM 1 : 4.8 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.69 TEMP: 25C C:1135. FPS
DBA: 59.8
SEL: 70.9

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 30.0 HP
STALL SPD: 47 KTS
APP SPEED: 61.1 KTS
DBA: 60.8
SEL: 68.8

****

GERMAN CERTIFICATION =71.00 DBA AT 23 C

REFERENCE MATERIAL: P.O.H. 6/16/76

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SLA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-18-150 "SUPER CUB"
WEIGHT: 1750 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-320-A2B
150 BHP(S.A.)
PROP: SENSENICH M74DM6-0-56 (2BLD)
DIA.: 74.00 IN.
FIXED PITCH , STANDARD

****
TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 960 FPM (AT 2700 RPM)
VY: 65 KTS
DSO: 500 FT
ALT.@ 6500M: 2851. FT
GAM 1 : 8.4 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.69 TEMP: 25C C:1135. FPS
DBA: 53.1
SEL: 62.6

****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (6 DEG. GLIDESLOPE)

APP POWER: 30.0 HP
STALL SPD: 37 KTS
APP SPEED: 48.1 KTS
DBA: 60.8
SEL: 69.9

****
USA CERTIFICATION =69.00 DBA AT 23 C

REF. DATA : BB&N REPORT LETTER 1/79 CONTRACT # W1-78-3805-1

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM F.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28-151 "CHEROKEE WARRIOR"
WEIGHT: 2325 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-320-E3D
150 BHP(EA.)
PROP: SENSENICH 74DM6-0-58 (2BLD)
DIA.: 74.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 650 FPM (AT T/O RPM)
VY: 75 KTS
D50: 1800 FT
ALT.@ 6500M: 1557. FT
GAM 1 : 4.9 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.69 TEMP: 25C C:1135. FPS
DBA: 59.5
SEL: 70.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 30.0 HP
STALL SPD: 44 KTS
APP SPEED: 57.2 KTS
DBA: 60.8
SEL: 69.1

****

GERMAN CERTIFICATION =72.60 DBA AT 24 C

REFERENCE MATERIAL: P.O.H. 6/17/76

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28-161 "WARRIOR II"
WEIGHT: 2325 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-320-D3G
160 BHP(EA.)
PROP: SENSENICH 74DM6-0-60 (2BLD)
DIA.: 74.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 710 FPM (AT T/O RPM)
VY: 79 KTS
D50: 1490 FT
ALT.@ 6500M: 1641. FT
GAM 1 : 5.1 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.69 TEMP: 25C C:1135. FPS
DBA: 59.2
SEL: 70.4

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 32.0 HP
STALL SPD: 50 KTS
APP SPEED: 65.0 KTS
DBA: 61.0
SEL: 68.8

****

USA CERTIFICATION =71.40 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. 6/29/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-44-180 "SEMINOLE"
WEIGHT: 3800 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING O-360-E1A6D
180 BHP(EA.)
PROP: HARTZELL FJC7666A-2R (2BLD)
DIA.: 74.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1340 FPM (AT T/O RPM)
VY: 88 KTS
D50: 1400 FT
ALT.@ 6500M: 2465. FT
GAM 1 : 3.6 DEG.
GAM 2 : 6.9 DEG.
TIP SPEED: MACH 0.72 TEMP: 25C C:1135. FPS
DBA: 62.1
SEL: 74.6

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 108.0 HP
STALL SPD: 59 KTS
APP SPEED: 76.7 KTS
DBA: 71.1
SEL: 76.2

****

USA CERTIFICATION =77.20 DBA AT 70 F

REFERENCE MATERIAL: P.O.H. 4/10/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA 44-180T "TURBO SEMINOLE"
WEIGHT: 3925 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING TO-360-E1A6D
180 BHP(EA.)
PROP: HARTZELL FC766A-2R (2BLD)
DIA.: 74.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1290 FPM (AT T/O RPM)
VY: 88 KTS
D50: 1500 FT
ALT.@ 6500M: 2383. FT
GAM 1 : 8.3 DEG.
GAM 2 : 6.7 DEG.
TIP SPEED: MACH 0.72 TEMP: 25C C:1135. FPS
DBA: 62.5
SEL: 74.8

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 108.0 HP
STALL SPD: 61 KTS
APP SPEED: 79.3 KTS
DBA: 71.1
SEL: 76.0

****

USA CERTIFICATION =73.80 DBA AT 24 C

REFERENCE MATERIAL: P.O.H. 3/31/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA 44 180T "TURBO SEMINOLE"
WEIGHT: 3925 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING TO 360 E1A6D
180 BHP(EA.)
PROP: HARTZELL PC7663-5R (3BLD)
DIA.: 71.00 IN.
VARIABLE PITCH, CUT

****
TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1290 FPM (AT T/O RPM)
VY: 88 KTS
D50: 1500 FT
ALT.@ 6500M: 2383. FT
GAM 1 : 8.3 DEG.
GAM 2 : 6.7 DEG.
TIP SPEED: MACH 0.69 TEMP: 25C C:1135. FPS
dBA: 90.8
SEL: 98.2

****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 108.0 HP
STALL SPD: 61 KTS
APP SPEED: 79.3 KTS
dBA: 71.1
SEL: 76.0

****
SAA CERTIFICATION =74.70 DBA AT 24 C

REFERENCE MATERIAL: P.O.H. 3/31/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

AD-A116 543 FEDERAL AVIATION ADMINISTRATION WASHINGTON DC OFFICE --ETC F/G 20/1
A DESCRIPTION OF METHODOLOGIES USED IN ESTIMATION OF A-WEIGHTED--ETC(U)
JAN 82

UNCLASSIFIED FAA/EE-82-1 NL

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28-181 "ARCHER II"
WEIGHT: 2550 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-360-14M
180 BHP(EA.)
PROP: SENSENICH 76EM8S5-0-67 (2BLD)
DIA.: 76.00 IN.
FIXED PITCH , STANDARD

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2400
R/C: 735 FPM (AT T/O RPM)
VY: 76 KTS
D50: 1625 FT
ALT.@ 6500M: 1755. FT
GAM 1 : 5.5 DEG.
GAM 2 : N.A. FOR FIXED PITCH PROP
TIP SPEED: MACH 0.71 TEMP: 25C C:1135. FPS
DBA: 59.7
SEL: 71.3

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 36.0 HP
STALL SPD: 53 KTS
APP SPEED: 68.9 KTS
DBA: 61.6
SEL: 69.1

****

USA CERTIFICATION =73.40 DBA AT 24 C

REFERENCE MATERIAL: P.O.H. 6/25/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-34-200T "SENECA II"
WEIGHT: 4570 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING TSIO-360-E
200 BHP(EA.)
PROP: HARTZELL FC8459-8R
DIA.: 76.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1340 FPM (AT T/O RPM)
VY: 89 KTS
D50: 1250 FT
ALT.@ 6500M: 2438. FT
GAM 1 : 8.5 DEG.
GAM 2 : 6.7 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 64.4
SEL: 76.8

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 120.0 HP
STALL SPD: 61 KTS
APP SPEED: 79.3 KTS
DBA: 71.5
SEL: 76.5

REFERENCE MATERIAL: P.O.H. 8/23/76

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28RT-201 "CHEROKEE ARROW IV"
WEIGHT: 2750 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-360 C1C6
200 BHP(EA.)
PROP: MCCAULEY 90DJA-14E (2BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 831 FPM (AT T/O RPM)
VY: 87 KTS
050: 1600 FT
ALT.@ 6500M: 1420. FT
GAM 1 : 5.4 DEG.
GAM 2 : 3.8 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 67.0
SEL: 77.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 40.0 HP
STALL SPD: 55 KTS
APP SPEED: 71.5 KTS
DBA: 62.0
SEL: 69.4

****

USA CERTIFICATION =74.40 DBA AT 28 C

REFERENCE MATERIAL: P.O.H. 3/18/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28RT-201T "CHEROKEE TURBO ARROW IV"
WEIGHT: 2900 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
CONTINENTAL TSIO-360-FB
200 BHP(EA.)
PROP: HARTZELL F8459A-8R (3BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 940 FPM (AT T/O RPM)
VY: 97 KTS
D50: 1620 FT
ALT.@ 6500M: 1494. FT
GAM 1 : 5.5 DEG.
GAM 2 : 4.1 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 66.8
SEL: 76.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 40.0 HP
STALL SPD: 58 KTS
APP SPEED: 75.4 KTS
DBA: 62.0
SEL: 69.2

****

GERMAN CERTIFICATION =73.30 DBA AT 16 C

REFERENCE MATERIAL: P.O.H. 6/30/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-34-220T "SENECA III"
WEIGHT: 4750 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
CONTINENTAL LTSIO-360-KB
220 BHP(EA.)
PROP: HARTZELL FC-8459-8R (2BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, CUT

****
TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1400 FPM (AT T/O RPM)
VY: 92 KTS
D50: 1210 FT
ALT.@ 6500M: 2512. FT
GAM 1 : 8.6 DEG.
GAM 2 : 6.9 DEG.
TIP SPEED: MACH 0.74 TEMP: 25C C:1135. FPS
DBA: 64.3
SEL: 76.7

****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 132.0 HP
STALL SPD: 62 KTS
APP SPEED: 80.6 KTS
DBA: 71.9
SEL: 76.8

****
USA CERTIFICATION =74.20 DBA AT 60 F

REFERENCE MATERIAL: P.O.H. 4/21/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28-235 "CHEROKEE PATHFINDER "
WEIGHT: 3000 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-540-B4B5
235 BHP(EA.)
PROP: HARTZELL F8468A-4 (2BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 800 FPM (AT T/O RPM)
VY: 87 KTS
D50: 1250 FT
ALT.@ 6500M: 1315. FT
GAM 1 : 5.2 DEG.
GAM 2 : 3.3 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 72.5
SEL: 82.3

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 47.0 HP
STALL SPD: 52 KTS
APP SPEED: 67.6 KTS
DBA: 62.7
SEL: 70.3

****

GERMAN CERTIFICATION =79.30 DBA AT 5 C

REFERENCE MATERIAL: P.O.H. 1/12/77

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-28-236 "DAKOTA"
WEIGHT: 3000 LBS.(MAX.GROSS)
GEAR: FIXED
POWER: SINGLE RECIPROCATING
LYCOMING O-540-J3A5D
235 BHP(EA.)
PROP: HARTZELL F8468A-4R (2BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1110 FPM (AT T/O RPM)
Vy: 85 KTS
D50: 1216 FT
ALT.@ 6500M: 2035. FT
GAM 1 : 7.4 DEG.
GAM 2 : 5.4 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 67.9
SEL: 79.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 47.0 HP
STALL SPD: 56 KTS
APP SPEED: 72.8 KTS
DBA: 62.7
SEL: 70.0

****

USA CERTIFICATION =72.50 DBA AT 22 C

REFERENCE MATERIAL: P.O.H. 6/24/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
COMPETITIVE BROWN AIRCRAFT

AIRCRAFT: PIPER PA 23-250 "AZTEC"
WEIGHT: 5200 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING IO-540-C4B5
250 BHP(EA.)
PROP: HARTZELL HC845-7R (2BLD)
DIA.: 77.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1400 FPM (AT T/O RPM)
VY: 104 KTS
D50: 1695 FT
ALT.@ 6500M: 2114. FT
GAM 1 : 7.6 DEG.
GAM 2 : 5.9 DEG.
TIP SPEED: MACH 0.76 TEMP: 25C C:1135. FPS
DBA: 67.7
SEL: 78.8

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 150.0 HP
STALL SPD: 54 KTS
APP SPEED: 70.2 KTS
DBA: 72.5
SEL: 78.0

****

USA CERTIFICATION =76.80 DBA AT 26 C

REF. MAT. : BB&N LETTER REPORT 1/79 CONTRACT # W1-78-3805-1

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-24-260 "COMANACHE"
WEIGHT: 3200 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-540-B1A5
260 BHP(EA.)
PROP: HARTZELL 8467-7R (3BLD)
DIA.: 77.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1320 FPM (AT T/O RPM)
VY: 97 KTS
D50: 1800 FT
ALT.@ 6500M: 2050. FT
GAM 1 : 7.7 DEG.
GAM 2 : 5.7 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 64.8
SEL: 76.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
AT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 52.0 HP
STALL SPD: 58 KTS
APP SPEED: 75.4 KTS
DBA: 63.1
SEL: 70.3

****

SWISS CERTIFICATION =76.00 DBA AT 25 C

REF. MAT. : BB&N LETTER REPORT 1/79 CONTRACT # W1-78-3805-1

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-32R-300 "CHEROKEE LANCE"
WEIGHT: 3600 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-540-K1G5D
300 BHP(EA.)
PROP: HARTZELL F8475D-4 (2BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1000 FPM (AT T/O RPM)
VY: 92 KTS
D50: 1600 FT
ALT.@ 6500M: 1584. FT
GAM 1 : 6.2 DEG.
GAM 2 : 4.3 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 70.8
SEL: 81.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 60.0 HP
STALL SPD: 61 KTS
APP SPEED: 79.3 KTS
DBA: 63.8
SEL: 70.7

****

GERMAN CERTIFICATION =73.50 DBA AT 28 C

REFERENCE MATERIAL: P.O.H. 8/1/75

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA 32RT-300 "LANCE II"
WEIGHT: 3600 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-540 K1A5D
300 BHP(EA.)
PROP: HARTZELL F8475D-4 (2BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****
TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1000 FPM (AT T/O RPM)
VY: 92 KTS
D50: 2350 FT
ALT.@ 6500M: 1528. FT
GAM 1 : 6.2 DEG.
GAM 2 : 4.3 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 71.1
SEL: 81.4

****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 60.0 HP
STALL SPD: 52 KTS
APP SPEED: 67.6 KTS
DBA: 63.8
SEL: 71.4

****
SWISS CERTIFICATION =80.20 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. PIPER LANCE II

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA 32R 301 "SARATOGA SP"
WEIGHT: 3615 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING IO-540-K1G5D
300 BHP(EA.)
PROP: HARTZELL PB475D 4 (2BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****
TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1010 FPM (AT T/O RPM)
VY: 91 KTS
D50: 1573 FT
ALT.@ 6500M: 1679. FT
GAM 1 : 3.3 DEG.
GAM 2 : 4.6 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 70.1
SEL: 80.8

****
APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 60.0 HP
STALL SPD: 59 KTS
APP SPEED: 76.7 KTS
DBA: 63.8
SEL: 70.9

****
GERMAN CERTIFICATION =79.90 DBA AT 21 C

REFERENCE MATERIAL: P.O.H. 3/20/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-32R-301T "TURBO SARATOGA SP"
WEIGHT: 3617 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: SINGLE RECIPROCATING
LYCOMING TIO-540-S1AD
300 BHP(EA.)
PROP: HARTZELL PB477-4 (2BLD)
DIA.: 80.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1120 FPM (AT T/O RPM)
VY: 92 KTS
D50: 1420 FT
ALT.@ 6500M: 1907. FT
GAM 1 : 6.9 DEG.
GAM 2 : 5.2 DEG.
TIP SPEED: MACH 0.78 TEMP: 25C C:1135. FPS
DBA: 48.8
SEL: 80.0

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT 624 FT (5 DEG. GLIDESLOPE)

APP POWER: 60.0 HP
STALL SPD: 60 KTS
APP SPEED: 78.0 KTS
DBA: 63.8
SEL: 70.8

REFERENCE MATERIAL: P.O.H. 3/20/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE
BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH
ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-31-310 "NAVAJO"
WEIGHT: 6500 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING TIO-540-A2C
275 BHP(EA.)
PROP: HARTZELL FC8468-6R (3BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1220 FPM (AT T/O RPM)
VY: 94 KTS
D50: 2160 FT
ALT.@ 6500M: 2058. FT
GAM 1 : 7.4 DEG.
GAM 2 : 5.9 DEG.
TIP SPEED: MACH 0.76 TEMP: 25C C:1135. FPS
DBA: 68.8
SEL: 80.2

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 165.0 HP
STALL SPD: 63 KTS
APP SPEED: 81.9 KTS
DBA: 72.9
SEL: 77.7

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GERMAN CERTIFICATION =82.80 DBA AT 22 C

REFERENCE MATERIAL: P.O.H, 2/20/01

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-31-325 "NAVAJO C/R"
WEIGHT: 6500 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING TIO-540-E2BD
325 BHP(EA.)
PROP: HARTZELL FC8468-6R (3BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1220 FPM (AT T/O RPM)
VY: 100 KTS
D50: 2250 FT
ALT.@ 6500M: 1916. FT
GAM 1 : 6.9 DEG.
GAM 2 : 5.5 DEG.
TIP SPEED: MACH 0.76 TEMP: 25C C:1135. FPS
DBA: 69.8
SEL: 80.7

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT = 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 195.0 HP
STALL SPD: 70 KTS
APP SPEED: 91.0 KTS
DBA: 73.6
SEL: 78.0

REFERENCE MATERIAL: P.O.H. 2/20/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER PA-31-350 "CHEIFTAIN"
WEIGHT: 7000 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING TIO-540-J2BD
350 BHP(EA.)
PROP: HARTZELL FC8468-6R (3BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1120 FPM (AT T/O RPM)
VY: 101 KTS
D50: 2510 FT
ALT.@ 6500M: 1718. FT
GAM 1 : 6.3 DEG.
GAM 2 : 5.0 DEG.
TIP SPEED: MACH 0.76 TEMP: 25C C:1135. FPS
DBA: 71.1
SEL: 81.4

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 210.0 HP
STALL SPD: 74 KTS
APP SPEED: 96.2 KTS
DBA: 74.0
SEL: 78.1

****

SWISS CERTIFICATION =86.00 DBA AT 25 C

REFERENCE MATERIAL: P.O.H. 1/30/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER 601P "AEROSTAR"
WEIGHT: 6000 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING IO-540-S1A5
290 BHP(EA.)
PROP: HARTZELL C8468-8R (3BLD)
DIA.: 78.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1460 FPM (AT T/O RPM)
VY: 118 KTS
D50: 2500 FT
ALT.@ 6500M: 1911. FT
GAM 1 : 7.0 DEG.
GAM 2 : 5.6 DEG.
TIP SPEED: MACH 0.77 TEMP: 25C C:1135. FPS
DBA: 70.5
SEL: 80.6

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 174.0 HP
STALL SPD: 71 KTS
APP SPEED: 92.3 KTS
DBA: 73.1
SEL: 77.4

REFERENCE MATERIAL: AEROSTAR MODEL 601P A.F.M

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.

PROJECTED NOISE LEVELS FOR
PROPELLER DRIVEN AIRCRAFT

AIRCRAFT: PIPER 602P "AEROSTAR"
WEIGHT: 6000 LBS.(MAX.GROSS)
GEAR: RETRACTABLE
POWER: TWIN RECIPROCATING
LYCOMING IO-540-AA1A5
290 BHP(EA.)
PROP: HARTZELL PC8468-8R (3BLD)
DIA.: 76.00 IN.
VARIABLE PITCH, CUT

****

TAKEOFF DATA
NOTE: MIC POSITIONED 6500M FROM BRP

CLIMB RPM: 2500
R/C: 1755 FPM (AT T/O RPM)
VY: 117 KTS
D50: 2250 FT
ALT.@ 6500M: 2363. FT
GAM 1 : 8.5 DEG.
GAM 2 : 6.9 DEG.
TIP SPEED: MACH 0.75 TEMP: 25C C:1135. FPS
DBA: 66.0
SEL: 77.1

****

APPROACH DATA
NOTE: MIC POSITIONED 2000M FROM R/W THRESHOLD
ALT - 394 FT (3 DEG. GLIDESLOPE)

APP POWER: 174.0 HP
STALL SPD: 77 KTS
APP SPEED: 100.1 KTS
DBA: 73.1
SEL: 77.1

****

USA CERTIFICATION =81.90 DBA AT 20 C

REFERENCE MATERIAL: P.O.H. 8/3/81

NOTE:
AIRCRAFT CHARACTERISTICS TAKEN FROM P.O.H. AND A.F.M. ARE BASED ON MAX. T/O PERFORMANCE FOR A DRY, STANDARD DAY WITH ZERO WIND AT A SEA LEVEL AIRPORT WITH A ZERO GRADIENT RUNWAY.


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